

# Public Utilities

*FORTNIGHTLY*



July 22, 1937

**FEDERAL POWER COMMISSION'S ELECTRIC  
RATE SURVEY**

*By William E. Mosher*

« »

**The California Rate Policy and Its  
Results**

*By William J. Carr*

« »

**A Message, a Human Voice, and the  
Radio**

*By J. Frank Beatty*

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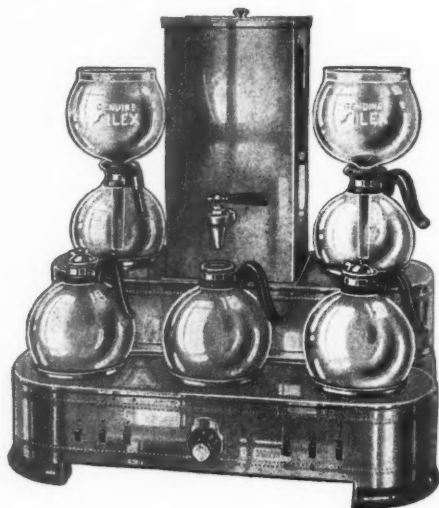
**New and Better Uses of Gas**

*By Clifford E. Paige*

**PUBLIC UTILITIES REPORTS, INC.  
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# FOUND

## A NEW WAY TO REDUCE TRUCK TIRE COSTS—

How much would you save if you cut your tire bill 10%?

In many cases the Goodrich man has been able to do better than that for utility operators. How? By means of a new method of tire selection and a new tire that is Triple Protected against sidewall failures.

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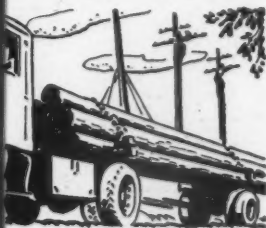
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the exact size and type of tire that will give the best service, but also indicates the probable life of tire equipment, present

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★★ The B. F. Goodrich Company, Akron, Ohio ★★

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Associate Editors—ELLSWORTH NICHOLS, FRANCIS X. WELCH  
Contributing Editor—OWEN ELY

# Public Utilities Fortnightly



VOLUME XX

July 22, 1937

NUMBER 2

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**Q** This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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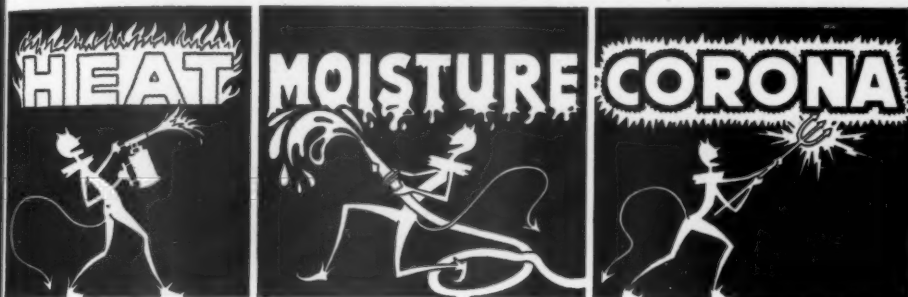
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JULY 22, 1937

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### EFFECTIVELY RESISTANT TO



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## Pages with the Editors

THE idea of collecting comparative rate data on domestic electric service in different cities is not new. It has been debated inside and outside of the electric industry for decades. The principal difficulty seemed to be to find an equitable common denominator in terms of which the widely varying charges in all the different cities could be expressed.

AND this diversity in the forms of different electric rate schedules (1-part rate, 2-part rate, demand charge, service charge, etc., etc.) was only the beginning of the trouble. There was the population factor, for example. How could rates for service in a large city be fairly compared with a village rate? How could large users be fairly compared with small users? Most troublesome of all, perhaps, was the fact that courts and commissions have usually refused to accept comparative rates as having any bearing on the legal reasonableness of rates charged, in the absence of almost impossible evidence of similar conditions in the towns compared. So what was the use of comparing such rates unless to make trouble and misunderstanding between utilities and their consumers?

In short, many critics of the idea of comparative electric rate data said, somewhat inconsistently, that (1) it couldn't be done, and (2) it shouldn't be done. But they reckoned without a Congress which in 1934 forthwith



J. FRANK BEATTY

*He thinks the utilities ought to take the air.*

(SEE PAGE 86)

ordered it to be done. The Federal Power Commission was the agency given the responsibility. It was DR. WILLIAM E. MOSHER who was given the actual task, as director of the Electric Rate Survey, of carrying out the mandate of Congress. In the leading article in this issue, DR. MOSHER tells us the story of how this gigantic job was organized and carried out.

HIS Federal chore completed, DR. MOSHER has now returned to his post as director of Syracuse University's noted School of Citizenship and Public Affairs; and he will also be recalled by the older FORTNIGHTLY readers as a rather frequent contributor to these pages during the early thirties. Of course, he is best known to all serious students of utility economics for his two excellent volumes and other published writings in this field. He was born in Syracuse in 1877 and educated at Oberlin College (A.B. '99) and Halle University in Germany (Ph.D. '04). He is the first vice president of the Political Science Association during the current year.

OPPONENTS of comparative rate studies used to object that the principal use to be made of such data would be as the basis for mischievous propaganda. Some such use has been made of the FPC studies but not enough to jog the memory of the average Man on the Street. Anyhow, the studies have been used by both sides of the utility question for their own purpose; so perhaps there is not a great



WILLIAM E. MOSHER

*His problem: Finding a fair basis for electric rate comparisons.*

(SEE PAGE 67)



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deal one way or another to be said on this point.

**S**PEAKING of utility propaganda, we have in this issue an article on the technique of bigger and better propaganda, or to use the more euphemistic term—public relations. It is written by a new contributor who is an editorial colleague, so to speak, from a publication devoted to problems somewhat allied to our own. He is J. FRANK BEATTY, editor of our esteemed contemporary, *Radio Broadcast*, and in this issue he tries to convince those who get paid to worry about utility public relations that the radio is the answer to their prayers.

We told FRANK straight off that we thought it would be a great trick if it worked, but that we preferred our radio straight without any gas mixture, kilowatt chasers, or telephone bitters. This enraged MR. BEATTY so much that he sat right down and wrote an article to show us the error of our ways. And that, gentle readers, is just what we intended all along. We believe we have provoked an interesting and readable piece from MR. BEATTY.

Despite his apparent youth, editor BEATTY survives considerable training and journalistic experience; to wit: graduate—Washington & Jefferson College and Dickinson Law School; editor — *Latrobe* (Pa.) *Bulletin*, *Greensburg* (Pa.) *Morning Review*, *United States Daily*, and *Radio Broadcast*.

**A** NAME that should be familiar to many of our readers, especially those concerned with the gas business, is that of CLIFFORD E. PAIGE, president and director of The Brook-



CLIFFORD E. PAIGE

*What's ahead for the gas industry?*

(SEE PAGE 94)

JULY 22, 1937



WILLIAM J. CARR

*California has its own ideas about regulation.*

(SEE PAGE 77)

lyn Union Gas Company, whose article on newer uses of gas begins on page 94 of this issue. MR. PAIGE started in the approved Horatio Alger fashion in 1903 as an office boy for the Springfield (Mass.) Gas Light Company. By 1912 he rose to manager of the gas company at Malden, Mass. By 1919 he was managing the Worcester (Mass.) Gas Light Company, and in 1922 he became president of the Beverly (Mass.) Gas and Electric Company. In 1924, MR. PAIGE shifted the scene of his operations to New York, becoming vice president of the company he now heads. He has held numerous posts of importance in the various associations of the gas industry in the United States.

**A**NOTHER new contributor to the **FORTNIGHTLY** is WILLIAM J. CARR, whose article on California's rate policy begins on page 77. MR. CARR is now public utilities counsel for the city of Los Angeles following nine years of service as a member of the California Railroad Commission (1927-1936). Born in Batavia, Ill., in 1879, MR. CARR was educated at the University of Wisconsin and began his legal practice in the Philippine Islands. He transferred his activity to Pasadena in 1908 and to Los Angeles in 1913, serving as a state senator from 1913 to 1922.

The next number of this magazine will be out August 5th.

*The Editors*

## How a brand new idea HELPS MAKE SALES FOR UTILITIES



**WHATEVER** you're selling . . . ranges, refrigerators, gas or electricity . . . here's a new and different way your men can tell their story . . . and get the business! See how the new Kardex visual sales presentation works:

1. Everything your salesman needs on any call is contained in a single unit much smaller than a brief-case.
2. Prospect's curiosity is immediately aroused by the novel form and business-like appearance of the zipper-fastened genuine leather binder. What does it contain . . . what will appear when your salesman lifts those cards?
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4. Outstanding features are dramatized with charts, figures, photos of people in action . . . wherever you wish them to occur.

5. This is one presentation that can be specific on rates, costs, prices, models or terms. Cards with these facts may be changed as often as necessary to fit temporary or local conditions.

6. Finally—a brisk summing-up and direct request for the order . . . a tremendous help for any salesman who's weak on closing.

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# Ok..it's from Remington Rand

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## PREPRINTS FROM PUBLIC UTILITIES REPORTS

*Various regulatory rulings by courts and commissions reported in full text, pages 433-496, from 18 P.U.R.(N.S.)*

# It takes more than THEORY to build a Transformer

Advanced Theory

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Careful Selection of  
Materials and Parts

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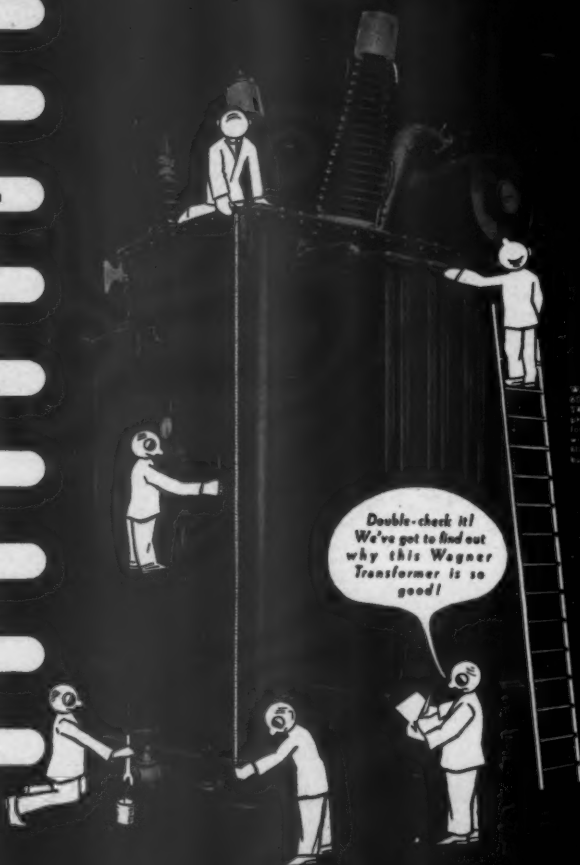
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one of the largest  
transformers in the  
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# Remarkable Remarks

*"There never was in the world two opinions alike."*

—MONTAIGNE



WILLIAM E. BORAH  
*U. S. Senator from Idaho.*

"Everyone realizes that this thing we call recovery is in a jittery, shaky condition."

HOWARD BRUBAKER  
*Writing in The New Yorker.*

"It looks more and more as if the turning point of this (Supreme Court) game was Justice Van Devanter's sacrifice bunt."

EARL W. GRAY  
*Officer, Oklahoma Gas and Electric Company.*

"It is impossible to vision a limit to the potential air conditioning market. Every home valued above \$7,500 will be air conditioned."

JOHN E. RANKIN  
*U. S. Representative from Mississippi.*

"I am not going to enter into a discussion of that intense jealousy which the Army Engineers are manifesting toward the engineers of the Tennessee Valley Authority."

LOUIS GUENTHER  
*President, Guenther Publishing Corporation.*

"The utilities have already submitted far too long and too meekly to the poison of political barrage that has been continuously centered upon them ever since the New Deal came into power."

PHILIP LA FOLLETTE  
*Governor of Wisconsin.*

"Labor has no more right than management to coerce and intimidate workers or employees. A government should make it its business to intervene against whichever side hits below the belt."

SAMUEL O. DUNN  
*Editor, Railway Age.*

"We are drifting toward state socialism. Already we have adopted so many socialistic policies that we are undermining on every hand the system of private ownership and management of property."

MAJOR GENERAL  
EDWARD M. MARKHAM  
*Chief of Army Engineers.*

"The provision of remedial measures to control floods or to protect the more important centers of population from these ravages is a major problem which cannot be accomplished without the expenditure of vast sums. Piecemeal protection would be far more costly in the long run than the execution of a comprehensive Federal plan."



# Burroughs

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**RECORDS**

*in*

**1**  
**WRITING**

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**2**

### EARNINGS RECORD

Complete individual progressive record for each employee shows time worked, gross earnings, deductions, and net pay for any and all periods. Provides information needed for old age benefits, unemployment insurance, and income tax reports.

**3**

### EMPLOYEE'S STATEMENT

This receipt for deductions, which the law requires be given to each employee at each pay period, also shows the individual's gross earnings, all deductions, and net pay. It can be retained permanently by the employee.

**4**

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EDITORIAL STATEMENT  
*The New Republic.*

"The only new aspect of the President's (wages-hours) proposal is that now for the first time the United States government seems to have the constitutional power to pass laws of this kind."

IRA L. CRAIG  
*President, Pennsylvania Electric Association.*

"The actual rural electrification problem is not the construction of new service lines to reach people who won't use them, but rather to develop the use of service on the lines that exist."

CHARLES W. APPLETON  
*Vice President, General Electric Company.*

"Some day it may be recognized that there is a certain unfairness and lack of perspective in attempting to work out general social, economic, and legal reforms wholly within the confines of a single industry."

GEORGE O. SANFORD  
*General Supervisor of Operation and Maintenance, U. S. Bureau of Reclamation.*

"Where it is possible to develop power in connection with irrigation improvements, power must be considered. With water as scarce as it is in the West, it is important that what water we have does double duty."

ARTHUR E. MORGAN  
*Chairman, Tennessee Valley Authority.*

"The quality of social changes we make is not going to depend on laws and governmental structure, but in the long run the quality of living is going to be that of individuals, the family, the neighborhood."

CHARLES W. KELLOGG  
*President, Edison Electric Institute.*

"We are now witnessing in our business and shall continue to witness in the immediate future a race between sales and inflation. Inflation has been gaining, but may we hope for nothing worse than a dead heat in the end."

FRANKLIN D. ROOSEVELT  
*President of the United States.*

"My interest in and enthusiasm for this important (St. Lawrence) project has constantly increased, and I propose to do everything within my power to bring about an agreement which will start its construction at the earliest possible date."

HUGH S. JOHNSON  
*Former NRA Administrator.*

"Except for the Great Lakes waterway there is not an inland waterway system in the country that justifies itself and its cost in either traffic or saving in freight. Certainly this one (TVA) won't. This system is of practical value to an infinitesimal few at a cost of millions to many."

EDITORIAL STATEMENT  
*Charleston News and Courier.*

"Senator Norris says that a man was paid by power companies a salary of \$400 a month to close his mouth, that is, not to speak for the government's 'TVA' developments—as though the government were not paying divers citizens \$400 a month to open their mouths in favor of them."

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(four types)  
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(all standard types)  
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(Included in above list are all types known by the tradenames Heine, Walsh-Weidner, Casey-Hedges and Ladd)

### STOKERS

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Single-Retort Underfeed  
(five types)  
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(two types)  
Chain Grate  
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(Included in above list are all types known by the tradenames Coxe, Green, Type E, Type K, and Skelly)

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Wherever moving surfaces come together, no matter what the speed or load, Cities Service can recommend authoritatively the correct lubricants to use. Whether you need heavy greases for massive gears or the lightest of oils for delicate precision machines, Cities Service is ready to fill your every need.

Cities Service engineers will be glad to discuss your lubrication problems with you.



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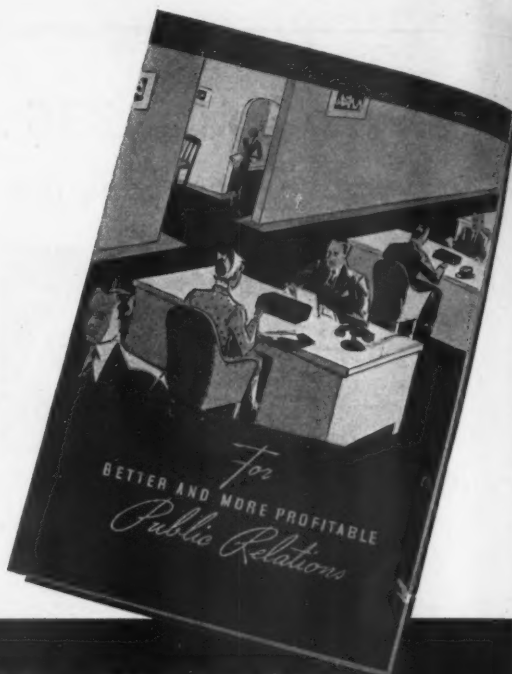
Compressor Oils  
Cutting Oils  
Diesel Engine Oils  
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Leather Finishing Oils  
Loom Oils

Marine Engine Oils  
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Spindle Oils  
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Turbine Oils  
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tact departments are  
subject to seasonal  
or periodic conges-  
tion . . . If your bad  
debt losses are higher  
than they should be . .***



## **YOU SHOULD HAVE THIS BOOK!**

● It tells how the elapsed time for individual customer transactions in the offices of a public utility company can be (and *has been*) reduced from 10 minutes to 45 seconds each . . . It tells how new accounts can be opened, excess charge complaints adjusted—credit ratings, customer histories, amounts of deposits ascertained with remarkable speed . . . It describes a new method for the centralization of information and practically instantaneous voice contact between departments . . . It deals not with theory but with fact—telling of surprising results achieved by firms such as Kansas City Power and Light Co., New York Edison Co., Public Service of N. J., etc.

DICTOGRAPH PRODUCTS CO., INC.,  
580 Fifth Ave., N. Y. C.

- ☐ Please send me a copy of "Better and More Profitable Public Relations."  
☐ Please have representative call.

NAME .....

FIRM .....

ADDRESS .....

CITY ..... STATE.....

© 1937, Dictograph Prod. Co., Inc.

*You should read "Better and More Profitable Public Relations." It will be sent on request without charge or obligation to interested public utility executives. Write, 'phone or use coupon.*

### **DICTOGRAPH PRODUCTS CO., INC.**

580 Fifth Avenue, New York, N. Y.

Manufacturers of Precision Equipment  
Since 1902

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**Full Size Professional  
ARC  
WELDER**

Details **FREE!** Here's thrilling news! A full size, heavy duty Aladdin Electric ARC WELDER

—only \$39.25 with De Luxe Accessories! Not a toy, but a big, 100-pound man-sized machine that welds all weldable metals and alloys with amazing efficiency, everything from cast iron parts to light sheet metal. A sturdy, welded-steel construction machine, yet easily portable on casters.

**Only \$39.25**  
With Deluxe Accessories

### WORKS FROM 110-VOLT SOCKET

Simply plug into any 110 or 220 volt A.C. electric socket. Economical—costs only a few pennies an hour to use. Often pays for itself on first or second job. Can be carried right to outside jobs in auto truck or side car. Has complete heat controls. Anyone can use easily. Instructions for doing all kinds of welding jobs included.

### Amazing Details FREE!

Send no money! Write today for fascinating facts about this new Aladdin ARC WELDER with De Luxe Accessories. Aladdin is the ideal welder for Public Utility service, maintenance and construction work—a highly efficient machine GUARANTEED TO MEET ALL CLAIMS, at a fraction of the price asked for others—at a saving that may amount to several hundred dollars! Send today for full details. You are not obligated.

**COMMONWEALTH MFG. CORP.**

4208 Davis Lane Dept. U-70 Cincinnati, Ohio



Portable lamps marked with this tag are bringing better sight to young and old. It says in effect: "Found by E. T. L. test to comply with I.E.S. specifications."

## BETTER LOAD BUILDERS ... thanks to E.T.L. tests

I. E. S. Better Sight Lamps are enjoying an amazing success with the public and are rapidly boosting lighting load. Why?

Partly because E. T. L. Tests help give better value by assuring compliance with I. E. S. specifications. Thus your customers get lamps that:

1. Give more and better light.
2. Are electrically safe.
3. Are mechanically sound.

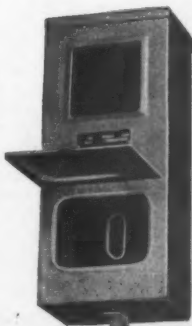
These lamps are one of many products tested by E. T. L. For more than forty years, Electrical Testing Laboratories has been finding the facts, by research and test, about almost everything that a utility sells, services, buys or uses. Our clients tell us it has made their operations more profitable. May we serve you?

Write for your copy of a new booklet which explains our services.

## CONSTANT SERVICE

This combined meter box and service switch is built to give constant service under the toughest weather conditions.

Aluminum or rust-proofed steel... fused pullout switch... special weatherproof door... plenty wiring space... any desired knockouts.



Series 95

Write today  
for complete information

**WALKER ELECTRICAL COMPANY**  
ATLANTA GEORGIA



**ELECTRICAL  
TESTING  
LABORATORIES**

80th Street and East End Avenue  
New York, N. Y.

# FRANK SMITH WRITES TO MAJOR BOWES ABOUT HIS DODGE TRUCK

Read What He Says About the Amazing  
Dependability of His Six-Year-Old Dodge!

Bloomington, Ill.

Major Bowes:

I drive a 1930 Dodge truck with a special built body. It has 321,000 miles on it and has had only one new set of pistons since purchased. On my route, with the 6-year old truck, I make 110 miles a day with 8 gallons of gas per day and 1 quart of 40 oil every third day.

I have found by my experience that a Dodge truck is the most dependable and economical truck on the market.

Trust these facts may be interesting to you on your program over C. B. S.

Yours respectfully,

*Frank B. Smith*



Tune in on Major Bowes, Columbia Network, every Thursday, 9 to 10 P. M., E. D. S. T.

Easy terms gladly arranged to fit your budget, at low cost, through Commercial Credit Company.

## NEW 1937 DODGE TRUCKS

*"Saving up to '95 a year on Gas Alone" say Owners*



**NEW 1937 DODGE 1-TON EXPRESS**—6-Cyl.—Offered on 120" chassis with 84" body, and 136" chassis with 108" body. Has all the gas, oil and tire saving features and long-life construction that make Dodge world-famous. Get a "Show-Down" from your Dodge dealer.

PEOPLE don't sit down and write unsolicited letters of praise for any truck unless they mean it! Recently, thousands of truck buyers from coast to coast have switched from other trucks to Dodge. A surprising number of them write and express amazement at the way Dodge saves gas, oil and upkeep for them. In the same mail with letters from new Dodge truck owners come many others from owners of old Dodge trucks. These tell again and again of trouble-free service over hundreds of thousands of miles! Today, Dodge trucks offer a combination of money-saving features found nowhere else.

**DODGE**

Division of Chrysler Corporation

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- Alloy tool steels made to exacting specifications
- Old craftsman methods of individual manufacture
- The most rigid inspection and testing of each plier

Klein methods are not mass production methods but for a man who demands a plier of Klein quality there is no way to produce it except the Klein way.

**Mathias KLEIN & Sons**  
Established 1857 Chicago, ILL. U.S.A.

## ROBERT S. RAINS

announces his resignation from the position of

### SPECIAL CONSULTANT

with the

### FEDERAL COMMUNICATIONS COMMISSION

and the establishment of

### ROBERT S. RAINS AND COMPANY

Special Consultants

in all matters of

### ACCOUNTING, TAXES AND ENGINEERING

Munsey Building

Washington, D. C.

Telephone: Metropolitan 2430

Branch Office:

120 WALL STREET  
NEW YORK CITY

## All Over the World Engineers

# Exide

## Choose This Battery



### CHLORIDE BATTERIES

**E**NGINEERS all over the world recognize, in the unusual construction of the Exide-Chloride Battery, the reason for its gratifying performance in railway, telephone, electric power control and all other stationary services.

In nearly a half century of building storage batteries for every purpose, no other battery has been developed which fulfills more completely the requirements of utility and private industrial engineers. Write for information about this battery with its remarkable Manchester positive and Box negative plates.

### THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

*The World's Largest Manufacturers of Storage Batteries for Every Purpose*

Exide Batteries of Canada, Limited, Toronto

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## "What does business care about you and me?"

**A**nyone who knows anything about business knows that the query which heads this advertisement is Foolish Question No. 1.

As well ask: what do your lungs care about air, what does a fish care about water, what does a politician care about votes?

Business *lives* by people—by people like "you and me"—for people are the market for the things Business produces and sells.

Folks in business *are* people—weary and energetic, worried and hopeful people—customers of other businesses—even as you and I.

That's all very well, you may say, for the majority of businesses, but how about the big ones—the special privilege stuff and all—how about that?

Okeh, let us ask you: what great business do you know that grew big *without having customers*, what business can stay big unless it continues to *please* the customers it has?

No, the facts are all the other way.

The bigger a business, the more stake it has in seeing the average man prosper.

The bigger a business, the more vital it is that it have customers with the buying power, after paying for food, shelter and clothing, to afford the other things business has for sale.

And smart businesses have learned that they can't simply rely on bigness. The sweetest target a quick-thinking, up-and-coming man of enterprise can have is a big competitor who isn't alive to the public's wants.

One solemn truth brought home by the depression was, that in America "When there is no business, the people perish," and every sensible business man is aware that the rule works both ways.

Four-fifths of the National Income goes to workers, that is, about 65 per cent to those paid wages and salaries by employers and about 15 percent to those who pay themselves mainly wages or salaries.

This income averages \$1100 per year to each worker.

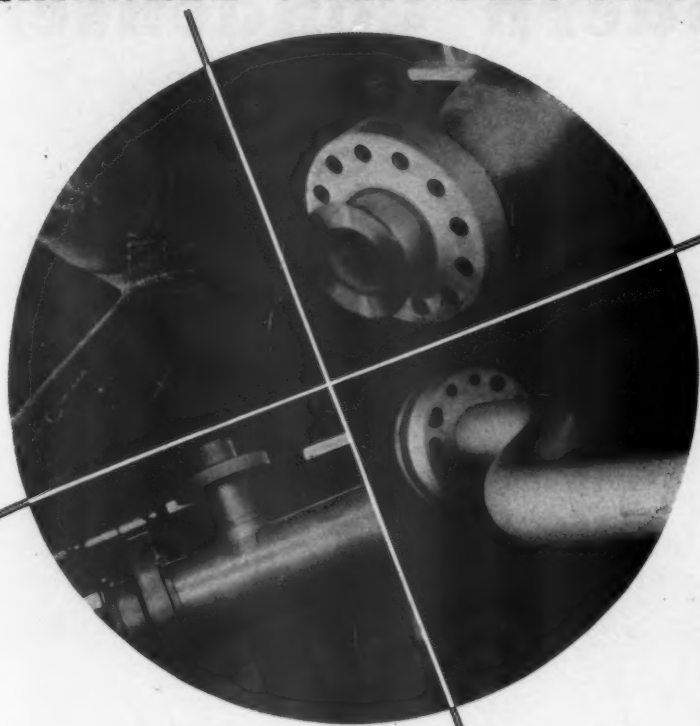
If no one of these workers were permitted a wage or salary in excess of \$5000 and all above that amount were distributed evenly to those who receive less than \$5000, each would get about 85 cents more a week.

This advertisement is published by

## NATION'S BUSINESS

—a magazine devoted to interpreting business to itself, and bringing about a better understanding of the intricate relations of government and business. The facts published here are indicative of its spirit and contents. Write for sample copy to NATION'S BUSINESS, WASHINGTON, D. C.

# GRINNELL PREFABRICATION



**cuts field welds to the minimum**

## GRINNELL PREFABRICATION

Includes These Four  
Major Services:

**WELDING      BENDING**  
**LAP JOINT FLANGING**  
**NOZZLE EXTRUDING**



The few field welds required to install a Grinnell Prefabricated Piping section are all of the plain circumferential butt weld type—any qualified pipe welder can make one or a hundred uniform welds.

Smooth in contour and inside surface, thoroughly pretested and qualified for insurance, Grinnell Prefabricated Piping gives engineers the advantages of basic and interpretive engineering, economy in cost and labor, easy, rapid erection and delivery on schedule.

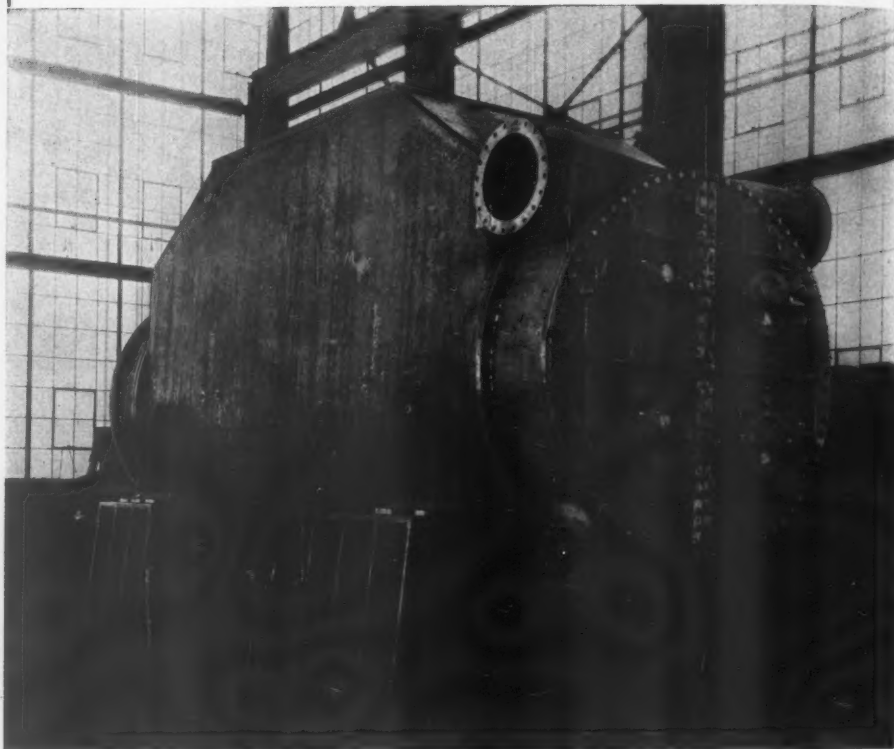
Find out how much more readily Grinnell prefabrication can provide complicated sections; multiple outlets; unusual bends. And rely on the vast resources of Grinnell to provide the advanced plant facilities, 1937 thinking and years of experience that will make the job go right. Grinnell Company, Inc., Executive Offices, Providence, R. I. Branch offices in principal cities.

# GRINNELL

WHENEVER PIPING IS INVOLVED

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# Modern Condensers



Progressive development in condenser construction has resulted in the fusion-welded, copper-bearing steel shell. The combination

## **STEEL SHELLS**

of improved mill processing of large plates with shop experience in forming, reinforcing, fusion welding and X-ray examination has been so successful that a cast iron condenser shell is

now the exception, rather than the rule as in the past. The condenser illustrated has 13,000 square feet of surface. The welded design

## **FUSION WELDED**

eliminates numerous bolted joints between shell castings, will withstand severe shocks, costs less, and weighs much less than a cast iron housing.

**FOSTER WHEELER CORPORATION**

168 BROADWAY, NEW YORK, N. Y.

# FOSTER WHEELER

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## *The Symbol of an Idea*

**The P. T. C. Seal stands for an unique conception of co-operative promotion by an industry. Power Transmission Council's central idea is the advancement of planned power transmission, in the interest of the user of power, to the end that the right drive shall be used in the right place.**

**POWER TRANSMISSION COUNCIL**  
75 STATE STREET • BOSTON, MASSACHUSETTS



# RILEY PULVERIZERS

## in Central Stations

Plant after plant in the Public Utility industry has swung to Riley Pulverizers . . . definitely establishing Riley as one of the leaders

### *A few Public Utilities using Riley Pulverizers . . .*

Union Electric Light & Power, Cahokia . . . Repeat Order  
 Edison Electric Illuminating Co., Boston . . . Repeat Order  
 Hartford Electric Light Co., Conn. . . Repeat Order  
 Potomac Electric Power Co., Washington, D. C.  
 Oklahoma Gas & Electric Co. . . Repeat Order  
 Stamford Gas & Electric Co., Conn.  
 City of Springfield, Ill.  
 City of Tacoma, Wash.  
 Savannah Electric Co., Georgia  
 Dubuque Electric Co., Iowa  
 Central Iowa Power & Light Co.  
 Lynn Gas & Electric Co., Mass.  
 Upper Michigan Power & Light Co.

## RILEY STOKER CORPORATION

### WORCESTER, MASS.

BOSTON  
ST. LOUIS

NEW YORK  
CINCINNATI

PHILADELPHIA  
HOUSTON

PITTSBURGH  
CHICAGO

BUFFALO  
ST. PAUL

CLEVELAND  
KANSAS CITY

DETROIT  
LOS ANGELES

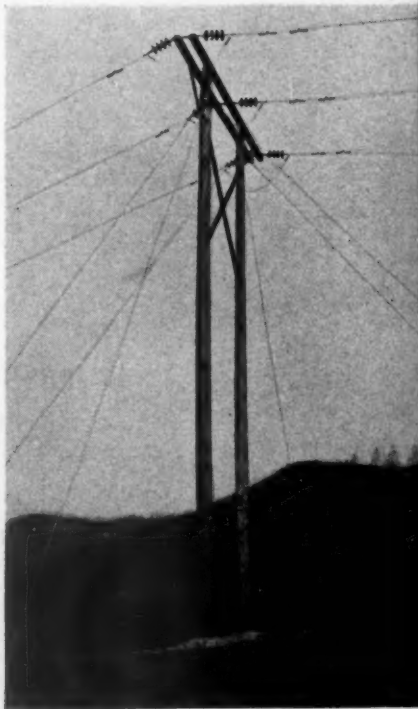
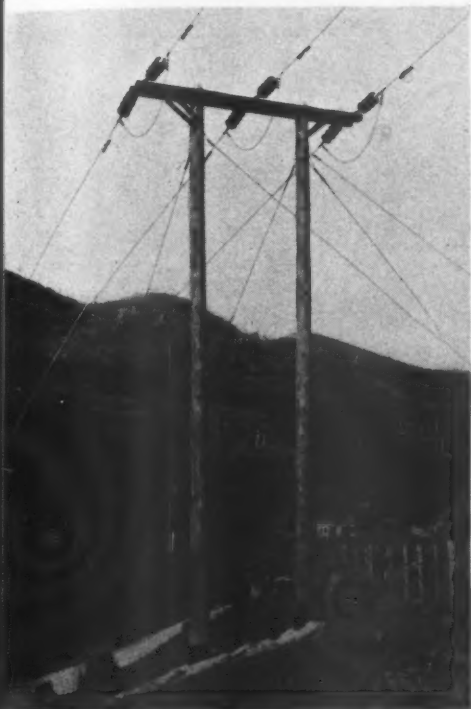
TACOMA  
ATLANTA

#### COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES  
 PULVERIZERS - BURNERS - MECHANICAL STOKERS - STEEL-CLAD INSULATED SETTINGS

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# **HOOSIER BUILT**



*Two views of 44 Kv. Transmission Line erected between Slab Fork and Milam, West Virginia, for the Appalachian Electric Power Company*

**CONSTANT IMPROVEMENT IN  
ORGANIZATION AND METHODS**

## **HOOSIER ENGINEERING COMPANY**

CHICAGO

46 SO. 5TH ST., COLUMBUS, OHIO

NEW YORK

Canadian Hoosier Engineering Company, Ltd.  
Montreal

**ERECTORS OF TRANSMISSION LINES**

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**PUBLIC UTILITIES EVERYWHERE**  
**USE DITTO** to Help Control Operations

Every smudged copy, every error in copying, every overworked and overloaded typist—demonstrates again your need for Ditto. For Ditto eliminates such wastes.

Public Utilities everywhere are accurately controlling their operations by using Ditto for the speedy inexpensive reproduction of reports, accounting forms, repair instructions, operating orders, material lists, inventories, schedules and the like. In no other way can you make copies so quickly and so inexpensively.

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Write today for our new book "Copies—Their Place in Business." It tells fully just what Ditto is, and what it can do for you.

**Ditto**  
 INCORPORATED  
 2284 W. HARRISON ST.  
 CHICAGO, ILLINOIS



# The sale of Modern Lighting for Modern Store Fronts should *begin at Home!*



*Here's how Architect Geo. F. Sansbury and the Potomac Edison Company convince the merchants and property owners of Camberland, Md., of the value of brightly lighted stores.*

A modern store front demands modern illumination. And modern illumination means a heavier lighting load. There's a natural tie-up if there ever was one . . . new Pittco Store Fronts and modern lighting.

But to take best advantage of this tie-up . . . to convince prospects in your community of the soundness of store front modernization with better lighting . . . there's nothing more valuable than an actual example . . . on your own show rooms . . . of just what you mean.

You talk to a merchant . . . tell him the need for modern merchandising methods . . . plug away on the idea of a new store front with better lighting. And to clinch the argument, you say "Look at our own quarters down the street. There's a new front . . . illuminated in the modern manner. We

practice what we preach . . . because we know it means better business!"

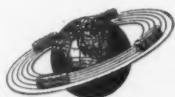
Put a new Pittco Front on your utility show rooms. Make them an example of what you preach. And when the Pittco Store Front Caravan, sponsored by Pittsburgh Plate Glass Company, comes to your territory, don't miss it. It shows you numerous actual examples of modern store front lighting. It offers you an opportunity to cooperate with a promotional effort that leads directly to more business for you. Contact our local branch for data about the Caravan . . . and for any cooperation on store fronts you may need in your work.

*Paint.* **PITTSBURGH. Glass**  
PLATE GLASS COMPANY

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## TRANSPORTATION MAKES MARKETS~

**B**EFORE modern Urban transportation, steam railroads pioneered the Nation's development . . . Subsequently, local transportation has built towns of villages; cities of towns, metropolitan areas of cities . . . All have become important Markets . . .



## TRANSPORTATION ADVERTISING MOVES MERCHANDISE~

And the *constant movement* of Merchandise is the Life Blood of these Markets . . . Stop this movement and villages disappear; towns shrink; cities die . . . That's why both Local and National merchants find their businesses so largely dependent upon ours . . . That's why your Company is vitally concerned in the selection of the Advertising Organization best qualified to keep the Life Blood of these Markets flowing . . . It continues to be to our mutual advantage to Cooperate.

**BARRON G. COLLIER, INC.,**  
*745 Fifth Avenue*  
*New York*

# "We want *Easy-Writing* ROYALS"

ONLY ROYAL HAS AUTOMATIC PAPER LOCK!  
IT SAVES TIME AT EVERY TURN FOR ALL OF US!

WE WANT ROYAL'S  
FAMOUS FINGER  
COMFORT KEYS!  
EASY ON THE FINGERS,  
EASY ON THE EYES!

TOUCH CONTROL  
GIVES EACH OF US  
THE "TOUCH" WE  
SUITE TO OUR  
HANDS!

GIVE US ROYAL'S  
INST. FREEDOM! NO  
MORE "BOSSING"  
FOLLOWING!

\* **EXCLUSIVE WITH ROYAL!** Three words that mean most to typewriter users! Day-to-day comparisons in thousands of offices show that Royal is outstanding in every phase of typewriter performance — speed, ease, capacity, economy, and durability! The reason is obvious. The revolutionary improvements featured above, and many others, are all *exclusive with Royal!* That is why typists and executives demand Easy-Writing Royals—why Royal sales continue to increase, year after year.

ROYAL TYPEWRITER COMPANY, INC.  
2 Park Avenue, New York City

World's largest company devoted exclusively to manufacture of typewriters. Factory: Hartford, Conn.

Touch Control—trade-mark for key-tension device.

Copyright, 1937, Royal Typewriter Company, Inc.

**MODERNIZE WITH**

**ROYAL**  
TRADE MARK

**WORLD'S NUMBER 1  
TYPEWRITER**

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## Hole Dug and Post Set

for **44¢**

Over a period of six weeks, this Cletrac with post hole auger, set poles at a cost of 44 cents each.

On another installation, the average cost was 23 cents.

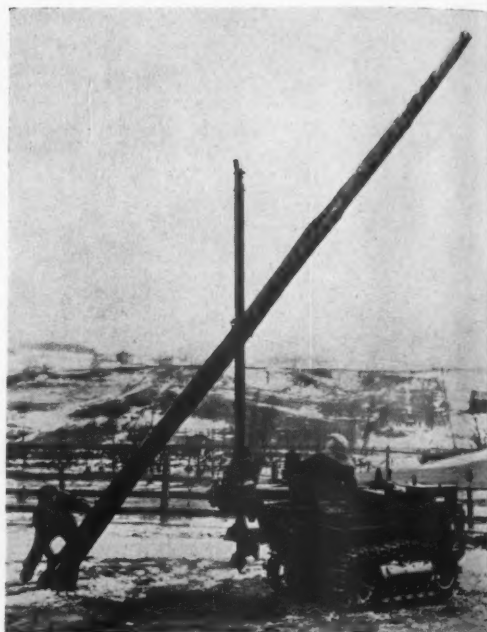
By hand, the average cost is \$3.00.

Cletracs are built to cut costs . . . to handle a wide variety of equipment that enables fewer men to do more work and do it better, easier, more profitably.

Ideally fitted to public utility work because of ease of handling, sturdiness of construction, and simplicity of maintenance, the Cletrac warrants thorough inves-

tigation. See your distributor.

Among the fifteen models from 22 to 94 horsepower, there is the right size for every job. Either gasoline, tractor fuel, or Diesel powered.

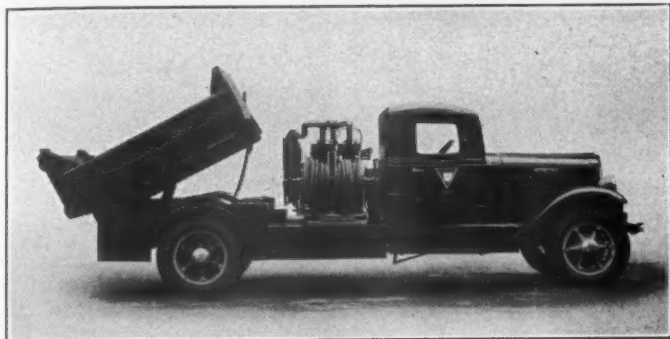


THE CLEVELAND TRACTOR COMPANY • CLEVELAND, OHIO

# Cletrac

## Crawler Tractors

The only tractors with controlled differential steering that keeps both tracks pulling at all times . . . on the turn as well as on the straightaway



## DAVEY Compressor Trucks WILL CUT YOUR MAINTENANCE COSTS

Because Davey Compressors take their power from the truck engine, they require only about one-third of the truck capacity. The rest may be used in a variety of ways in handling maintenance work.

So you have a dual-purpose unit, which may be used full time, either as a truck or as a compressor. You do not need a second truck to carry a compressor to the work.

Also, because compressed air is always available, your men will use time-saving air tools to do many smaller jobs which would otherwise be done at much greater expense by hand.

Davey truck-driven compressors are thoroughly proven in six years hard service. Let us tell you more about them.

### Some Distinguished Owners:

Boston Consolidated Gas Company  
New York Power and Light Corporation  
Michigan Bell Telephone Company  
Iroquois Gas Corporation, Buffalo  
City of Syracuse, N. Y., Div. of Water  
Connecticut Light and Power Company

**DAVEY COMPRESSOR CO., Inc.**  
**KENT, OHIO**

THIS COUPON WILL BRING YOU THE  
*Reasons Why*

**SILVRAY "MULTIPLEX" PROCESSING**

**INCREASES** effective street illumination from 30 to 50 percent, without change in existing equipment.

**BUILDS** your Commercial Load and, at the same time furthers public relations.

Mail the coupon... examine the data... it takes only a few moments to check on its possibilities as applied to your own problems.

**AMERICAN STREET ILLUMINATING COMPANY**  
261 N. Broad St., Philadelphia, Pa.

Send me the data on Silvray "Multiplex" Processing. It is understood there is no obligation.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

## GOOD INSULATORS



Insulators are only as good as the experience and workmanship put into their production.

Our product is produced by men of the greatest experience to be found in the industry.

VICTOR made insulators are Good INSULATORS.

*Catalog on request*

**Victor Insulators, Inc.**  
Victor, N. Y.



## INSTRUMENTS

TAGLIABUE offers a broad selection of instruments for measuring and controlling the energy factors so necessary for the proper operation of equipment. Ask for details and descriptive catalog of any of the following TAG Instruments:

RECORDING THERMOMETERS  
RECORDING PRESSURE GAGES  
INDUSTRIAL THERMOMETERS  
PYROMETERS FOR INDICATING, RECORDING  
AND CONTROLLING  
FLOW METERS  
INTEGRATING STEAM METERS  
CONTROLLERS FOR TEMPERATURE,  
PRESSURE, LEVEL, FLOW  
MERCURIAL VACUUM GAGES  
CHEMICAL THERMOMETERS • HYDROMETERS  
OIL TESTING INSTRUMENTS • STEAM TRAPS



**C. J. TAGLIABUE MFG. CO.**

Park & Nostrand Ave's., Brooklyn, N. Y.

# Another step ahead

in ELECTRIC  
COOKERY

L&H Calrod provides the world's fastest, flameless cooking heat. Utensils rest directly upon the FLAT thrift coils. L&H Electric Ranges have the exclusive "EQUALIZED HEAT" oven that makes perfect results a certainty.



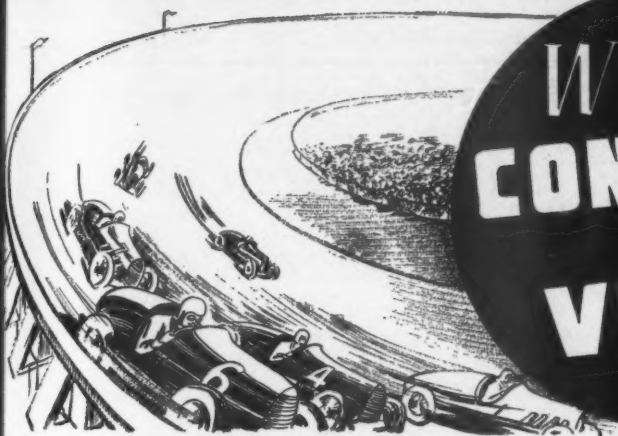
**L&H Advanced  
ELECTRIC RANGES**

A. J. LINDEMANN & HOVERSON CO.

Sealed in rust-proof metal, L&H Calrod is protected for a lifetime of normal household use. Find out how the new L&H Electric Ranges pave the way to increased sales.

MILWAUKEE, WIS.

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*When*  
**CONTROL**  
*is*  
**VITAL**

## USE A TITAN ON YOUR STORAGE WATER HEATER

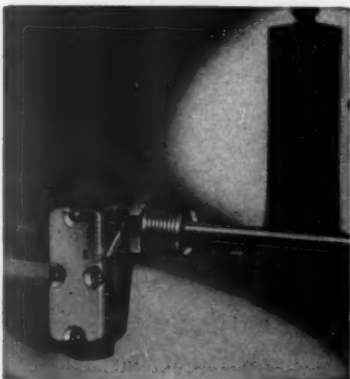
**T**O make this control possible, there must be built into the racing car the sturdiness, the long life, and the ability to absorb the gruelling punishment of the race. So too, the TITAN is built to perfectly control your storage water heater over a long period of time, and under the most exacting conditions. Upon this depends the success of the heaters you sell. Your aim is to increase consumer satisfaction.

¶ Why take unnecessary chances? Specify TITAN snap action thermostats, safety pilots and temperature and pressure relief valves with complete confidence, and build good will with your customer.

¶ TITAN Controls have delivered for years under every conceivable set of conditions, with all types of gases. They are rugged, sensitive, trouble and service free. They are standard equipment on most storage water

heaters approved by the American Gas Association.

¶ May we send you an impressive list of manufacturers who have standardized on TITAN Controls?



**THE TITAN VALVE & MANUFACTURING COMPANY**  
THERMOSTATS • SAFETY PILOTS • RELIEF VALVES  
9913 Elk Avenue Cleveland, Ohio

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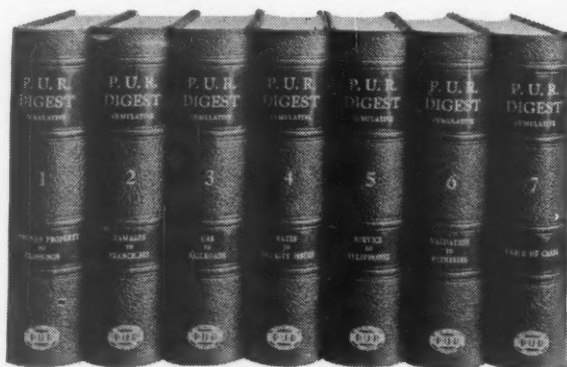
# TITAN

# WATER HEATER CONTROL

# P. U. R. Digest

## CUMULATIVE

*A DIGEST THAT IS SERVICED*



## Public Service Law and Regulation

**The only Complete Digest in this field**

### A Work of Primary Authority

Containing the Decisions and Rulings  
of the

United States Supreme Court  
United States Circuit Courts of  
Appeals

United States District Courts  
State Courts

Federal Regulatory Commissions  
State Regulatory Commissions  
Insular and Territorial Regulatory  
Commissions

A SHORT CUT  
COVERING  
FIFTY YEARS

AN EXHAUSTIVE  
SURVEY OF  
THE LAW

SIMPLE  
ALPHABETICAL  
CLASSIFICATION  
OF SUBJECTS

A GREAT REVIEW  
A GREAT SERVICE

**A Life-Time Digest Kept up to Date**

*Write for price and payment plans*

**PUBLIC UTILITIES REPORTS, INC.**

Tenth Floor, Munsey Building  
Washington, D. C.

This  
con  
gas  
sup  
town  
loa  
com  
that  
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by  
Stee

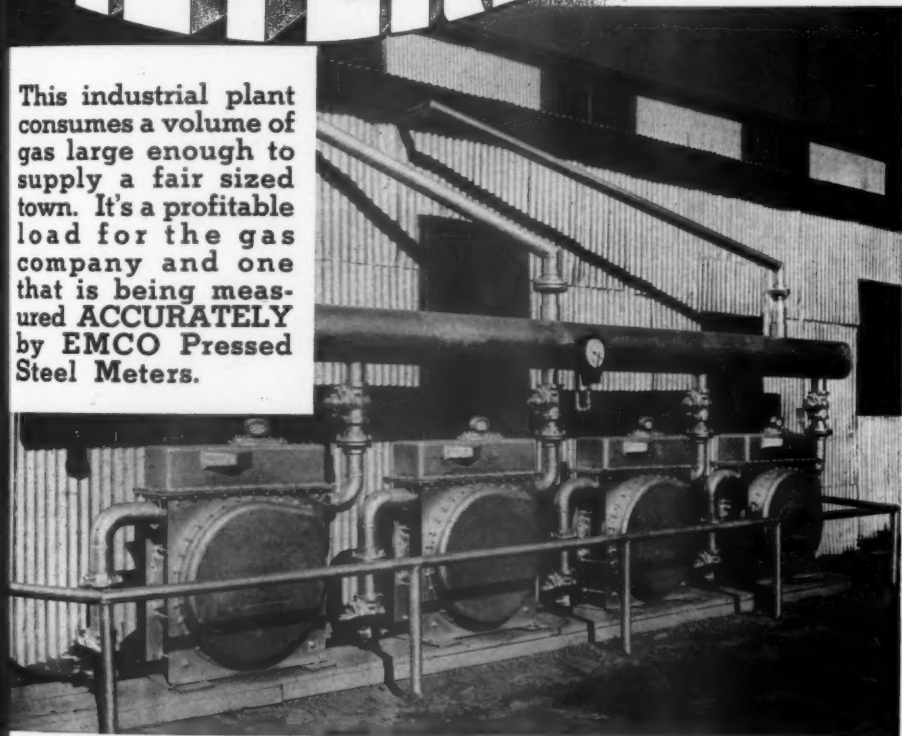
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ATL  
NEW

Thi

# EMCO METERS *at work*

This industrial plant consumes a volume of gas large enough to supply a fair sized town. It's a profitable load for the gas company and one that is being measured **ACCURATELY** by EMCO Pressed Steel Meters.



**PITTSBURGH EQUITABLE METER CO.**  
**MERCO NORDSTROM VALVE CO.**

MAIN OFFICES PITTSBURGH, PA.

ATLANTA  
NEW YORK

BUFFALO  
COLUMBIA

KANSAS CITY

PHILADELPHIA

TULSA

HOUSTON

CHICAGO  
LOS ANGELES

MEMPHIS  
OAKLAND

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# ALWAYS-- IN ALL WAYS-- A GOOD INVESTMENT..

## The Cleveland "Baby Digger Model 95"



### The Complete Trencher

Two factors determine the value of your trencher investment viz: — general adaptability for use on the maximum percentage of your work, and low cost of operation and maintenance.

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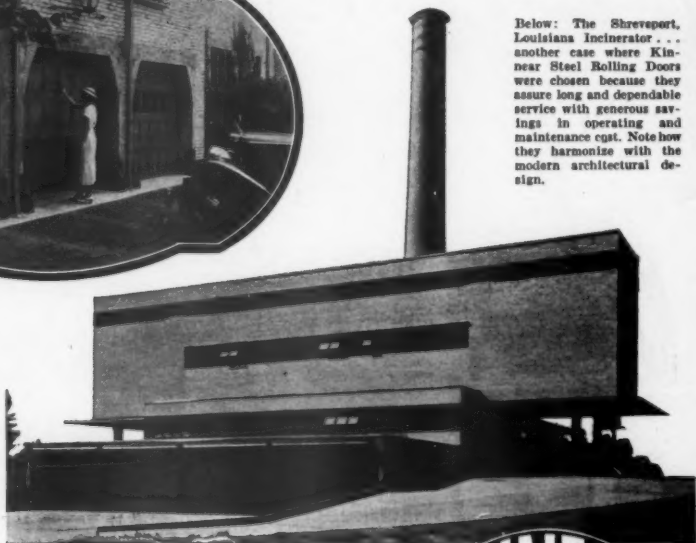
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A highly specialized plant—supplying perfect conditions to make a perfect product—indicates the careful regard for detail so true of Williamsport, in design and application as well as production. Williamsport Wire Rope for every need is fabricated independently and entirely, from rods to reels in our factories. We urge you to install a Williamsport rope selected for the individual needs of your job. And we are confident that you will enjoy its economy through longer, more uniform efficient service.

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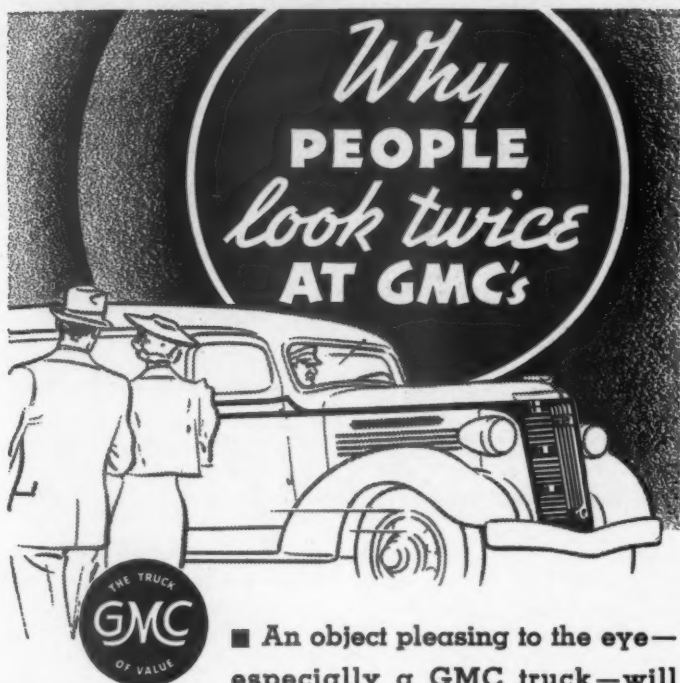
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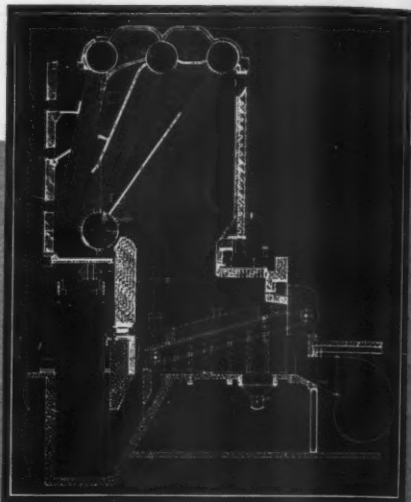
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*... have turned theory into practice*

● Theoretically, although it had never been done before, engineers knew that if a stoker could maintain an even fuel bed, it would minimize draft problems, permit the efficient burning of low cost coals — and surpass in performance all existing stokers. Scores of engineers tried to secure this even fuel bed effect. Stowe Stoker engineers, and only Stowe Stoker engineers, succeeded. They conceived and perfected "compensating feed."

"Compensating feed" maintains the fuel bed **automatically** at an even depth, side to side and front to rear . . . and moves it toward the ash hoppers at constantly diminishing speed so that it does not burn thinner and thinner. It reduces carbon loss in the ash sometimes by a full 50% and minimizes draft problems. Compartmented wind boxes, and long rear arches,

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Today you will find these modern, more efficient stokers, that have been characterized by impartial observers as the biggest forward step in mechanical firing in the last 10 years — in service from Arkansas to Massachusetts. They are the logical first choice for any new boiler or modernization project. May we send you more complete details and a fully descriptive catalog? It will pay you to investigate Stowe Stokers' possibilities for your plant.



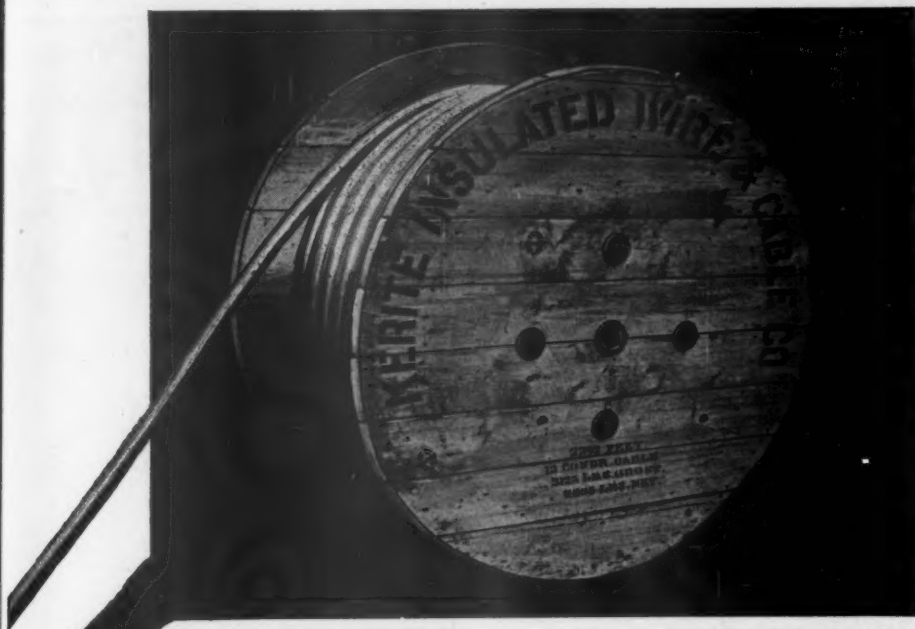
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# STOWE STOKERS

*Compensating Feed*

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THE CAREFUL INVESTOR JUDGES A SECURITY  
BY THE HISTORY OF ITS PERFORMANCE

**K E R I T E**

IN THREE-QUARTERS OF A CENTURY OF  
CONTINUOUS PRODUCTION HAS ESTABLISHED

A RECORD OF PERFORMANCE

THAT IS UNEQUALLED IN THE HISTORY OF  
INSULATED WIRES AND CABLES

**THE KERITE INSULATED WIRE & CABLE COMPANY INC**

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# The FELT *GIVES* in the HILL-HUBBELL PROCESS

*In Pipe Coating Too!*

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**EXTRA PROTECTION**

**MAKES STEEL PIPE LAST LONGER**




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We use a bonded wrapping of bitumen impregnated FELT, most often inorganic, in the HILL-HUBBELL Process of coating STEEL PIPE for a very definite reason. Buried pipe lines are subject to mechanical forces that affect the coating, and we concur with eminent authorities when they say that pipe coatings should have a wrapping of FELT for shielding and reinforcing. The primary purpose of coating STEEL PIPE is to WATER-PROOF it and to insulate it from electric currents. Bonded FELT gives additional strength and prevents soil-stress of the coating—therefore EXTRA protection. However, FELT must be PROPERLY APPLIED to serve its purpose. The HILL-HUBBELL Process applies FELT MECHANICALLY in the most efficient manner known today. No matter how many miles of STEEL PIPE there are in an installation, each and every inch is properly protected.

**BITUMINE ENAMEL**, an oil-coat for product applied by the HILL-HUBBELL Process, gives MAXIMUM protection.



Three coats of enamel, one wrapping of Felt, and one covering of kraft paper are applied mechanically at ONE time with ONE labor cost. There are no bubbles, skips, or holidays with the HILL-HUBBELL Process.

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This bulletin with many illustrations "shows how" it is done—also contains prices. Write on your letterhead for copy.

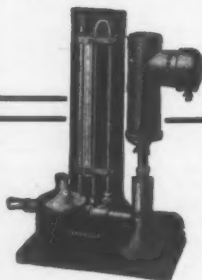


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Accurate Direct Reading Type

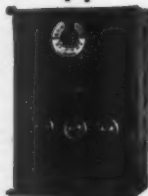
REMOTE SIGNAL SYSTEM



Connolly Products: Iron Sponge and Unmixed Oxide—Regulators for Station, District, Service and Appliance—Back Pressure Valves—Distribution Supplies.

This simplified BTU Indicator is a dependable instrument for determining the heat value of any kind of gas, including artificial, natural, mixed, propane and butane. Reading gives BTU directly without lag, corrections or calculations. It is useful in production operations and many other special applications.

Illustration shows Caloroptic . . . including pressure regulator, U-gauge and burner unit . . . fitted with a photronic cell for use with Distant Signal unit. This unit may be located in distant office or control room, and is provided with lights and alarms according to method of protection desired.



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MODEL 120  
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*Your  
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to the water  
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# EVEREADY

TRADE MARK

## INDUSTRIAL FLASHLIGHT

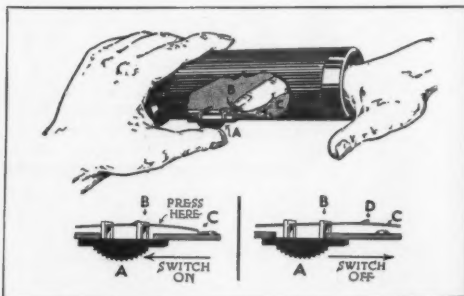
**"Built for Rough Treatment"**

The "Eveready" Industrial Flashlight is built for ROUGH treatment. The entire outer casing is made of heavy fibre reinforced inside by brass parts to help withstand severe service. The lens and lamp are protected by a special cushioning which softens the hardest impact. This flashlight has no exterior metal parts and it is completely insulated for working around "hot" wires, and therefore prevents shocks and short circuits. The casing will not dent and is not affected by oils, grease, gasoline, alcohol or other solvents and does not deteriorate with age.

The moulded slide switch is positive in operation and slides "on and off" easily. The whole assembly can be readily taken apart and put together without tools. Particles of grit cannot cause trouble.

**TO REMOVE:** Slide the switch "A" to the "on" position and hold it firmly against the tube with the thumb. Insert longest finger of right hand in tube and press brass contact strip "C" directly in front of lug "B". This pressure releases the latch and the strip will slide out.

**TO REPLACE:** Hold flashlight as shown and press the switch "A" in the "off" position, holding it firmly against the tube. Insert brass contact strip "C" with the small raised latch piece "D" on the top. Push it through the slot in the first lug "B". Press down on the slide to flatten the "bow". This pressure will lift the end so it may be pushed in through the second lug. Continue to push forward until a distinct click is heard. Then the switch is latched and properly assembled.



**NATIONAL CARBON COMPANY, INC.**

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Unit of Union Carbide **UCC** and Carbon Corporation

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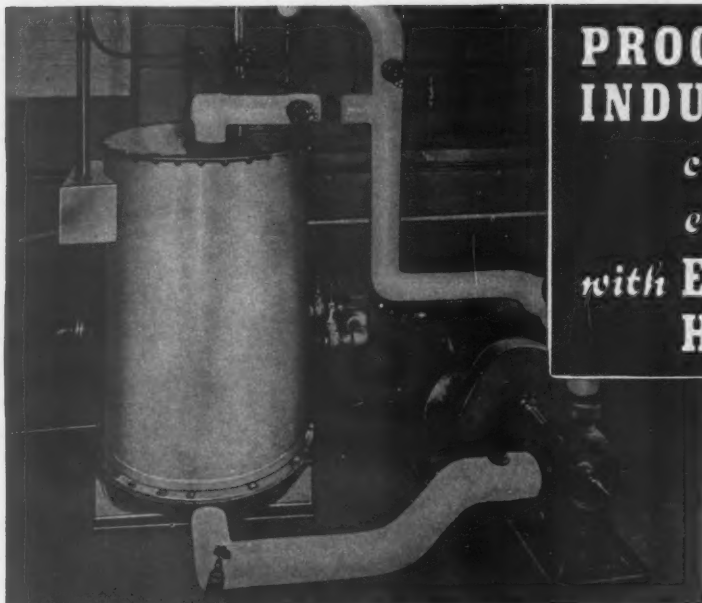
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# PROCESS INDUSTRIES can effect economies with **ELECTRIC HEAT** !

*Typical installation of Elliott electric hot oil circulating heater*

**ELLIOTT**  
*Electric  
Heating  
Systems  
for the  
Process  
Industries*



**ELECTRIC HEAT** can show substantial overall savings when compared with other high-temperature heating means.

The cost of heat in a process is actually a minor item, as compared with the major costs of operation, materials, fixed charges and maintenance labor. Heat frequently represents less than one per cent of the total cost.

Electric heat can reduce waste or spoilage of material, thus increasing the yield. It can reduce overhead charges by virtue of increased production, at the same time improving the quality of the finished product.

Such results are being obtained with Elliott electric heating systems, specially designed for the process industries. In one instance, the cost of electric heat was \$1.80 per hour, the value of the increased yield \$23.40 per hour. There were also savings in steam and labor, and the value of the product was increased due to improved quality.

There are several Elliott electric heating systems, some using electric heat indirectly by heating and circulating oil or diphenyl vapor. There are also immersion type heaters, special tubular heaters, continuous systems for deodorizing edible oils, fat splitting, distillation of fatty acids, and the treatment of tung and various other oils.

You should know something of these systems. Literature is available upon request.

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*Heat Transfer Dept., JEANNETTE, PA.*

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# Utilities Almanack

## JULY

22	Th	¶ American Water Works Association, Central States Section, will hold session, Dearborn, Mich., August 18-20, 1937.	
23	F	¶ National Association of Railroad and Utilities Commissioners will convene, Salt Lake City, Utah, August 31-September 3, 1937.	
24	Sa	¶ American Society of Civil Engineers ends annual convention, Detroit, Mich., 1937.	
25	S	¶ American Chemical Society will hold convention, Rochester, N. Y., September 6-10, 1937.	
26	M	¶ American Transit Association will convene, White Sulphur Springs, W. Va., September 19-23, 1937.	
27	Tu	¶ League of Virginia Municipalities will hold meeting, Virginia Beach, Va., September 20, 21, 1937.	
28	W	¶ American Water Works Association, Rocky Mountain Section, will convene for session, Santa Fe, N. M., September 20-22, 1937.	
29	Th	¶ The Illinois Telephone Association will hold annual meeting, Peoria, Ill., September 22, 23, 1937.	
30	F	¶ American Trade Association Executives will hold convention, French Lick, Ind., September 23-25, 1937.	
31	Sa	¶ American Gas Association will hold annual meeting, Cleveland, Ohio, September 27-October 1, 1937.	

## AUGUST

1	S	¶ Chicago Exposition of Power and Mechanical Engineering will meet, Chicago, Ill., October 4-9, 1937.	
2	M	¶ National Safety Council will convene for session, Kansas City, Mo., October 11-15, 1937.	
3	Tu	¶ United States Independent Telephone Association will hold convention, Chicago, Ill., October 12-15, 1937.	
4	W	¶ American Society for Metals will hold meeting, Atlantic City, N. J., October 18-21, 1937.	



*Photo by T. Horydczak*

*Courtesy, Potomac Electric Power Co.*

## Wires and Cables

*Fresco by James Michael Newell*



# Public Utilities

*FORTNIGHTLY*

VOL. XX; No. 2



JULY 22, 1937

## Federal Power Commission's Electric Rate Survey

The publication of the reports based on the commission's study has, in the opinion of the author, served to bring about widespread and material rate reductions and has thus tended to supplement the established regulatory processes.

By WILLIAM E. MOSHER  
DIRECTOR OF SURVEY

**U**NDER a congressional resolution passed in the spring of 1934, the Federal Power Commission was directed "to investigate and compile the rates charged for electric energy for this service to residential, rural, commercial, and industrial consumers throughout the United States together with an analysis thereof." For this purpose \$300,000 was appropriated and a special staff known as the Electric Rate Survey was organized. The vice chairman of the Federal Power Commission, Basil Manly, was assigned to take charge of the survey. At the outset he interpreted the purpose

of the survey to be "fact finding, not rate making."

In drawing up the program for the survey it became apparent that the investigation was to be carried on according to a broad conception of the assignment.

Not alone were comparative data on charges for electricity to be brought together, but also rate structures were to be analyzed. Such progressive rate policies as were in effect were to be studied and such subjects as rural electrification, appliance merchandising, and the like were to be taken into account.

## PUBLIC UTILITIES FORTNIGHTLY

### I. BASIC REPORTS ON RATE COMPARISONS

THE major task was obviously to bring together on a comparable basis the amounts charged the several classes of consumers for various quantities of electricity in all communities of the country. It was understood without much discussion that the method of comparing charges should be in the form of typical bills, to be computed in the first instance by company officials. Previous investigations had clearly demonstrated that rate comparisons on the basis of established schedules call for arbitrary interpretations and are far from conclusive. This decision necessitated the determination of typical quantities and demands, having in mind that fair comparisons require consumptions that are both representative and typical. For example, if a company made no special provision for the sale of 500 kilowatt hours per month to residential consumers because it had no consumers in this class, the charges might be unreasonably excessive. Situations of this sort developed in a considerable number of companies. Furthermore, since certain utilities charged on the basis of counted rooms, others on that of the square foot area, and still others with reference to the connected load, it proved to be no easy matter to determine typicality with respect to these methods of measuring demand. This problem arose not alone in connection with the domestic class of consumers but even to a greater extent with other classes, such as commercial, industrial, and rural.

THE establishment of definite specifications for quantities and conditions of service for which the bills are

to be compared was perhaps one of the major contributions of the Electric Rate Survey. An accumulation of data on a nation-wide scale from which typicality could be "statisticated" was nowhere available. Recourse had to be taken to private sources, such as spotty, published information, and data furnished by a few private and municipal utilities that had made detailed analyses of consumption by classes of customers.

On account of the limited data available on this phase of rate comparisons the commission subsequently authorized a house-to-house canvass in over one hundred cities and towns. This was carried on with the aid of FERA students who worked under the auspices of interested professors. The canvass covered appliances in use as well as the bills actually paid by the families investigated. The survey confirmed the previous decisions on the specifications for typical bills for residential consumers. As domestic consumption increases and becomes more varied, changes in the specifications may be called for.

The diversity of consumption in the commercial and industrial fields is much greater than among domestic users. Here one may have to do with a small shop, a large department store or hotel, or a one-man garage, a steel mill, an aluminum manufacturing establishment, or an electrified railroad. The gamut of demand conditions and consumptions is almost without limit. This is reflected in a bewildering variety of schedules, found not alone in the industry as a whole, but often even within a single company. Typicality was tentatively established for these classes by referring to the records

## FEDERAL POWER COMMISSION'S ELECTRIC RATE SURVEY

placed at the disposal of the commission by a few of the larger utilities which receive regular reports from properties scattered throughout the country. The commission also enjoyed the coöperation of several well-known rate experts in setting up the typical bills for commercial and industrial usage. But despite the efforts to frame specifications that would be generally representative, it must be admitted that further investigations are required before adequate and acceptable classifications of customers can be set up in the commercial and industrial fields.

FOR rural consumers the difficulty of establishing typicality was still greater. Many utilities use the most varied and complicated methods for billing the farmer the cost and maintenance of the pole line in conjunction with charges for demand and energy consumption. Here the experience of a number of utilities as well as that of the Rural Electrification Administration was drawn on in the preparation of the specifications. The returns from the questionnaires went to confirm the previous impression as to the chaotic methods of dealing with rural customers. Only the beginnings of standardization were discernible in rural rate policies, as of 1935. It is understood that since this date considerable progress has been made in the way of simplifying rural rate schedules.

The commission sought information in the latter part of 1934 on the matter of rates, schedules, sales by classes of customers, and related features, through comprehensive questionnaires which were forwarded to each and every company engaged in the distribution of electricity. As matters turned out the commission enjoyed practically 100 per cent coöperation so that, when its reports were published, data were available for each and all of the 25,000 towns and cities in the country. Indeed, in some states, reports appeared for the charges for energy sold to consumers in villages of as limited a population as seventy-five.

EARLY in 1935 reports by states began to be issued for seven typical bills, effective as of January 1, 1935. (Rate Series Nos. 1-2). Without exception these bills had been originally figured by the companies concerned and checked against the published rate schedules by the staff of the rate survey. All corrections—and there were many—were finally approved by company officials so that the published figures were official in every sense of the word. The same policy was followed in the reports on 8 typical bills for rural consumers. (Rate Series No. 8), on 26 bills for commercial consumers, and 13 for industrial consumers. (Rate Series No. 4). In these latter instances, however, the reports were not pre-



“THE establishment of definite specifications for quantities and conditions of service for which the bills are to be compared was perhaps one of the major contributions of the Electric Rate Survey. An accumulation of data on a nationwide scale from which typicality could be ‘statistigated’ was nowhere available.”

## PUBLIC UTILITIES FORTNIGHTLY

sented by cities, but rather by companies with an index to the cities served by the companies. By this means it became possible for a consumer in any class to make comparisons with consumers of the same class in other localities.

Among the most significant findings of the survey was the disparity in charges for like quantities of electric energy delivered under like conditions in cities of similar size located in the same states. These disparities frequently amounted to as much as 100 per cent. On the face of it they are so marked that they cannot be justified on any conceivable basis of investment or operating costs.

**S**UPPLEMENTING the individual state reports which present bills by communities is the report for the United States as a whole in which average typical residential bills are shown by states and geographical divisions, (Rate Series No. 3). This includes also the average domestic consumption by states. All averages are weighted by population served. The disparities between the states are most striking and all together inexplicable. For example, the New England states, New York, and New Jersey, with their large quantities of available water power, proximity to the coal fields, population density, and industrial loads, are in the same class as Texas, North Dakota, South Dakota, and Mississippi, from the point of view of average charges for 100 kilowatt hours. For 250 kilowatt hours New York, Wyoming, Arizona, and New Mexico were in the highest category. It is also noteworthy that there is a distinct correlation between the average charge per kilowatt

hour and the average amount of consumption the country over. On this latter score all of the above-named states were below the national average in 1933.

The conclusion is inescapable that, although electricity is avowedly a cost-plus industry, the disparities appearing in the state and national reports cannot be explained on any known system of cost accounting. The explanation for these differences is rather to be sought in a study of what the traffic will bear and what tradition sanctifies.

**O**NE consequence of the commission's publication of typical residential bills in the above reports has been a veritable epidemic of rate reductions that has continued more or less to the present day. To what extent this has been due to the pressure exerted by consumers, by the state commissions, or to the voluntary action of the companies, it is probably impossible to determine. It is known that a limited number of companies were engaged in adopting promotional and objective rates previous to 1934 and would have continued in this policy quite irrespective of the rate investigation. However that may be, the records indicate there has never been so widespread a tendency to reduce rates in any earlier period. It has been estimated that rate reductions totaled in the two years from the inauguration of the rate survey upwards of a hundred million dollars.

The efficacy of comparative rate data of the sort made available by the Federal Power Commission as a means of bringing about rate reductions has been demonstrated at least to the satisfaction of the present writer without



### Effect of Federal Electric Rate Survey

**“IN the Electric Rate Survey the Federal Power Commission undertook a task that sorely needed doing and that only a Federal agency could carry through successfully. On the whole its reports to the public have been well received. Its typical bills and methods of presenting the resulting data have been more or less widely accepted and even imitated by state commissions and utility companies.”**

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the shadow of a doubt. It serves as a partially effective supplement to, if not substitute for, regulation through a public service commission. At any rate it justifies the faith of the originators of the rate survey and the action of Congress in 1935 in assigning such a survey to the Federal Power Commission as a permanent function.

**U**NDER the authority of the “Utility Act of 1935” the commission is now engaged in securing data from all companies concerning typical bills, effective January 1, 1937. Although the forms for reporting are somewhat simplified, it is to be noted that the specifications are virtually the same as for the original reports of 1935. The major differences in the typical bills are in the omissions, only three of which are noteworthy. They are as follows:

1. Omission of the bill for 150 kilowatt hours on the residential sheet.
2. The omission of about half of

the bills on the commercial light and commercial power sheets.

3. The omission of three bills on the industrial power sheet as well as all bills with a demand of 3 kilowatts.

It is anticipated that the compilations will be presented in a manner similar to that adopted for the earlier reports except that commercial and industrial bills will be published by communities rather than by companies. This will facilitate the use of the reports by interested consumers. Presumably such compilations will be published each year. In this case rate trends can be studied not alone for a single community, but also for companies, states, and the country as a whole. This body of data should prove of increasing value to consumers, regulating bodies, and to the companies, as well as to investors and investment houses. In passing it may be noted that representatives of the latter have shown a surprising interest in the comparative rate levels of the companies whose securities they

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are marketing. In their judgment apparently reasonable rates are one of the earmarks of good management.

**I**N the residential field the method employed by the Electric Rate Survey for presenting typical bills in tabular and bar chart form has become so popular as to be called almost standard. State commissions as well as some utility companies use the method in their regular reports. But this does not seem to be the case in the commercial, industrial, and rural classes. It is particularly surprising that the business men who pay their bills on commercial rate schedules and who are generally assumed to be "holding the bag," did not take the expected interest in the publications of the respective typical bills. The commission may well subject this feature to a more detailed study, so that it may develop a method of presentation which will have a greater appeal to this important class of consumers.

## II.

### SUPPLEMENTARY REPORTS

**A. Comparisons between Public and Private Plants.**—Among the supplementary reports one of the most revealing has to do with the comparison between the charges of private and publicly owned and operated utilities on a state and regional basis (Rate Series No. 5). This report goes to show that for the most part the average typical bills of municipal plants set forth in population groupings and properly weighted are lower than for private concerns except in the smaller towns and cities of 5,000 population and less. The plants in such communities labor under a considerable disadvantage be-

cause of the relative inefficiency of small plants and the load factor that is likely to be characteristic of these localities. The bulk of the smaller towns and villages served by private companies is connected with large systems and therefore enjoys a considerable advantage in the matter of energy costs.

The same generalization may be made as to average typical bills for commercial and industrial uses. The comparative figures indicate that municipal plant managements are not exploiting large consumers to the advantage of the large residential class, as is so frequently maintained.

**R**EFERENCE might well be made at this point to the abuse of the data published in the above reports in that certain agencies have utilized the data to establish raw averages for the purpose of proving the higher charges of publicly owned and operated systems. In one tabulation, the residential bills for the city of Seattle with a population of 365,000 had no more weight than any one of a hundred small towns whose population in the aggregate equaled that of Seattle. No argument is needed to prove the unsoundness and illogicality of such a statistical process.

Furthermore, the argument that if municipal plants were called upon to pay taxes as the private companies are, they would be forced to charge far in excess of the schedules now in effect, and that a fair comparison requires the addition of an amount equal to taxes to the different bills charged in communities served by municipal systems, is effectively countered by the figures submitted by the commission in Rate Series No. 5. It is shown here that municipal plants in general contributed



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in the form of cash a higher percentage of their gross revenues than taxes constituted of the revenue of private companies taken the country over. These computations fail to take into account the contributions of municipal plants in the form of free or below-cost electrical energy used for city purposes. If a reasonable value be placed upon such energy it would make the public contributions of public plants substantially higher. Such a comparison has been worked out for the year 1933 in the special report under review. It might be added that although similar figures for 1934 were not published by the commission, a considerable volume of returns from the municipal organizations went to show that the year 1933 was not an exceptional one.

**B.** *Rate Uniformity.* — One of the most promising developments in rate practices is a growing tendency to simplify rate schedules and apply uniform levels for like classes of consumers in a number of communities served by one and the same company. That this movement is long overdue will be acknowledged by those familiar with the myriad varieties of schedules and levels now in force. The extent of non-uniformity is illustrated in a small town of 1,200 people in Florida where, according to this report (Rate Series No.

7), 31 rate schedules were in effect in 1935, 12 of which were designed for residential customers. At the other extreme was the Consumers Power Co. of Michigan which had adopted uniform electric rates both as to type and level for 223 out of a total of 227 localities.

The survey of rates from the point of view of uniformity shows that specified companies serving nearly 5,800 communities with a total population of 22,000,000 have adopted uniform rates for 75 per cent of the localities under their control.

This movement—it is a type of rationalization applied to rate policies—seems to be gaining headway. It is “good business” from every possible point of view. There is no conceivable justification for the bewildering array and complexity of rate levels and schedules, many of which cannot be interpreted by rate specialists without detailed instruction. The layman consumer is perforce bound to accept his monthly bills on faith. The Edison Electric Institute as the clearing-house of the industry, the National Association of Utilities Commissioners, and the Federal Power Commission would do well to combine forces and bring about a series of standard schedules that might expedite greater uniformity as to rate levels and greater simplicity as to form of schedule.



**Q** “THE efficacy of comparative rate data of the sort made available by the Federal Power Commission as a means of bringing about rate reductions has been demonstrated at least to the satisfaction of the present writer without the shadow of a doubt. It serves as a partially effective supplement to, if not substitute for, regulation through a public service commission.”



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**C.** *Commission Regulation of Rates.* —One of the special reports canvasses the extent to which state utility commissions exercise jurisdiction over the rates of privately and publicly owned and operated electrical plants (Rate Series No. 7). It is interesting to note that some commissions were in doubt as to the extent of their jurisdiction with respect to certain important phases of rate control. No less interesting are the limitations under which not a few commissions labor in regard to this matter. The sweeping generalization that electrical rates in this country are subject to public utility commissions must apparently, according to this report, be materially qualified.

a. *Private Companies.* For example, in 7 states no state body exercises regulatory authority over electrical utilities, while in 5 states regulation rests primarily with municipal bodies, and in another the commission has no jurisdiction when the utility operates in a single city. In 3 other states the commission's control is restricted to maximum rates and even on this matter one of the commissions takes no action unless protests are raised by consumers. Finally, one of the state commissions enjoying complete authority fails to exercise it on rate questions unless consumers protest within fifteen days of the filing of new schedules. Apparently rate regulation by presumably competent public bodies is far from what is generally assumed.

b. *Municipal Plants.* In addition to the 7 states where no state control over electrical utilities is authorized, 20 state commissions reported that they had no authority over municipal rates whatsoever. Nine others have jurisdiction over rates set for customers be-

yond municipal boundaries but not within them. In only 12 states is complete authority vested in the commissions on this matter. Here again it may be observed that the regulation of rates by a competent body is at best very spotty. The Federal Power Commission judicially avoids any expression of opinion as to the much mooted question concerning the propriety and advisability of subjecting the rates of municipal plants to state control.

A special feature of this report has to do with the regulation of special contracts either between a company and its consumers or a company and service organizations and other companies.

On the former subject 12 commissions prohibit special contracts with ultimate consumers although, in the case of some of these, rate schedules are so drawn that they are virtually special contracts. On the other hand, 27 commissions permit such agreements and 20 of them reserve the right to approve or disapprove.

As to contracts between companies and service organizations only 17 commissions indicated that such contracts must be submitted and receive commission approval. Of the others 8 require that the contracts be simply filed with the commission.

Further sections of this report deal with the rural service, customers' deposits, submetering, and the power to adopt sliding-scale plans.

**T**AKEN all together the report serves a very useful purpose. It brings together in a summary and compact form a picture of the scope and character of regulation, not alone with regard to rates but related matters as well. It shows that we still have some

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### Rate Reductions Increase Revenues

**"D**ESPITE . . . reductions, company revenues and earnings have almost universally been sweeping upwards. This is obviously partially due to the return of prosperity. However, the companies which have adopted the type of promotional rate known as objective rates seem to thrive on their domestic business."

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distance to go before there can be adequate regulation of electrical rates, assuming that the broad authority vested in the more progressive state commissions is a measure of adequacy. The commission's inquiry was largely restricted to legal authority. Only incidentally was it brought out to what extent and in what manner the commissions make use of their authority. This is, of course, another story, but if the whole tale of rate regulation is to be told, it is a necessary supplement to what is offered in the report under review.

The reports already published by the commission by no means indicate the scope of the work of the Electric Rate Survey.

A number of investigations have been made in which the data did not permit of adequate analysis, adequate, that is, for publication purposes. With supplementary data some of these may yet see the light of day. Other reports are said to be in the process of final editing and may soon appear.

**I**N the Electric Rate Survey the Federal Power Commission undertook a task that sorely needed doing and that only a Federal agency could carry through successfully. On the whole its reports to the public have been well received. Its typical bills and methods of presenting the resulting data have been more or less widely accepted and even imitated by state commissions and utility companies.

Perhaps the chief contribution of the survey reports is the acceptance of comparable bills as a measure of the fairness of rates. If a norm is established by the averaging process for customers of one and the same class who live in cities of comparable size and in the same region, wide variations from such a norm justify a demand for explanation or adjustments. It was maintained earlier in this article that the several factors entering into costs—and this is presumably a cost-plus industry—could not vary to the extent necessary to explain a 50-100 per cent differential in rates on the basis of the

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comparisons adopted by the survey. Such variations appear in one state report after another. They point to a partial breakdown in regulation whether by state commissions or local authorities or both. The publication of these reports has served to bring about widespread and material rate reductions and has thus tended to supplement the established regulatory processes. At best rate comparisons are but a makeshift and stop-gap for regulation as it has been conceived in this country.

**B**UT we shall have to depend on such a makeshift until such time as the courts see fit to do away with the cumbersome and unworkable doctrine of reproduction cost new as the chief basis of determining investment. This is the *bête noire* of regulators who would be glad to "do a job." It provides the basis for inflating base values to almost any desired extent and can be made to justify almost any rate levels wished for. Under it commissioners divest themselves of the rôle of regulators and perforce become bargainers. It is for this reason mainly that rate comparisons have played such an important rôle in the past two or three years in bringing about rate reductions.

As stated earlier, a number of commissions as well as the more forward-looking companies have been active in lowering rate levels in certain areas. Despite such reductions, company revenues and earnings have almost universally been sweeping upwards. This is obviously partially due to the return of prosperity. However, the companies which have adopted the type of promo-

tional rate known as objective rates seem to thrive on their domestic business. Although the Federal Power Commission has not yet published its report on the experience of companies using objective rates, a recent publication on this subject, "The Objective Rate Plan," by William F. Kennedy, supports the position that it pays to cut rates—it pays both the companies and the customers.

**T**HE recorded experience of 56 companies goes to show that charging what the traffic will bear and contesting every move of utility commissions in the direction of lower charges are short-sighted and, from the point of view of self-interest, unenlightened. The rank and file of utility managers have failed to appreciate the meaning of the term "elasticity of demand," particularly as applied to an industry where first costs constitute so large a part of final costs. Lower and lower charges are clearly indicated both from the pragmatic and theoretical viewpoints.

The Electric Rate Survey may thus prove to be a blessing in disguise for the suppliers of electricity themselves since its comparative data bring pressure to bear upon concerns whose rates are out of line and who may after a space of time find themselves selling more at lower rates, but still earning more than under higher schedules. There are, of course, limits to this process, but just what they are has not as yet been determined. America's capacity for the consumption of electricity seems at the present outlook to be unbounded.



# The California Rate Policy And Its Results

The domination of the cost formula in fixing the rate base has, in the opinion of the author, been beneficial to both the public and the utilities.

By WILLIAM J. CARR

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FOR approximately twenty years, and at least until 1934, the California Railroad Commission clung consistently and tenaciously to a policy of prescribing rates calculated to yield the utility a return on the original cost of its property—but with land at current values—at a rate somewhat in excess of the cost of bond, preferred stock, and reserve moneys invested in the property. While the return was computed upon an undepreciated property base, the operating expense of depreciation was limited to an appropriate sinking-fund annuity, the utility being expected (and sometimes required) to account for interest on its retirement reserve balances.

The policy was expressed by the commission in a case ordering reduced rates.<sup>1</sup> This was referred to by Mr. Justice Butler, in his dissenting opinion in the Los Angeles Case, quoting the following language of the commission:

This commission for many years, in the exercise of its jurisdiction to establish reasonable rates for utilities of this character, has fixed rates to yield upon the historical or actual cost of the property, taking land, however, at current values and (with) depreciation calculated on a sinking-fund basis, a return somewhat in excess of the cost of the money invested in the property.<sup>2</sup>

A qualified limitation of the duration of this policy is set at 1934 because in that year a divided commission declared:

Persistence in the use of past rate-making policy and practice of the commission will defeat in a large measure the effectiveness of the commission's action . . . It is better that the practice be changed and that the rates promulgated by the commission be tested on the fair value rate base . . .<sup>3</sup>

This, broadly stated, is the policy that has entered into the very warp and woof of the operation, conduct, and public supervision of the great utility industry in California. It is of interest by way of retrospect to view this policy, its refinements, the philosophy upon which based, the forces which contributed to its formulation and use, its

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practical workings, and the results to the public and to the utilities from its application.

THE policy may not be said to have represented a pure historical cost or prudent investment basis of rate fixation. Indeed, a qualification of the historical cost idea is indicated in the very statement of the policy. Land was taken at its current value. Where in commission decisions the expression "historical cost" is used, examination of the facts will frequently disclose that land has been independently appraised. With the decline in real estate values, the practical importance of this special treatment of land has disappeared. Occasionally, in constructing a property base, deductions from cost were made because of capital expenditures deemed to have been imprudently made or to have been unreasonable, but where an expenditure was made in good faith and was reasonable at the time and the resulting property for one cause or another became useless, provision was usually made for its amortization out of earnings. Materials and supplies and working cash capital were, of course, added to the cost of structural property and the value of land in making up the property base. Consumers' advances and frequently donations in aid of construction were deducted. They were included, however, for the special purpose of calculating the expense of depreciation. Of late the commission has sometimes attempted alternative earning set-ups with varying treatment of the ever-troublesome issues of accrued depreciation and depreciation expense. "Cost of money" was usually taken as the current carrying cost of bond, preferred stock, and reserve capital.

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IN recent years there has crept into the decisions the suggestion of a theory or philosophy upon which the use of the policy could with a good deal of logic be defended when rates prescribed were subjected to court attack. Stated more baldly than in the decisions, the philosophy ran something like this: The prescription of rates for the future being a legislative act, the legislative department may employ any method it deems appropriate to determine reasonable rate levels. Unless these levels are so low as to accomplish a deprivation of property in violation of constitutional guaranties, the judicial department is not concerned.

In the San Joaquin Light & Power Corp. Case, the California Supreme Court expressed this very idea, pointing out that "the function of rate making is purely legislative in its character" and that "the commission might have fixed rates without making a finding, in figures, of the value of the property" and that "the only ground upon which the courts may interfere . . . is that the action in question impairs constitutional rights."<sup>4</sup>

The decision of the United States Supreme Court in the United Fuel Gas Co. Case supported this approach.<sup>5</sup> Further support was found in the Los Angeles Gas & Electric Corp. Case where it was said:

The legislative discretion implied in the rate-making power necessarily extends to the entire legislative process, embracing the method used in reaching the legislative determination as well as that determination itself. We are not concerned with either, so long as constitutional limitations are not transgressed.<sup>6</sup>

IT is appropriate and usually wise to test the result reached on the traditional basis against the "reasonable return on fair value" formula. If the

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yield of the rates constructed under the traditional policy seems to hug too closely the line of confiscation, a higher rate of return may be used and danger of the rates being held confiscatory guarded against. This is just what was done in the Los Angeles Gas Case.

Sometimes where the order was a "soft" one with rates thought to be well above the line of confiscation, or where there was no indication of objection to the use of the policy, the legalistic check on action was not attempted. In closely contested cases, however, the commission usually explored the legalistic check and made findings to indicate that rates prescribed would work no deprivation of property. The decline in price levels following 1931 furnished an excellent background for the application of this philosophy. Reasonable appraisal of valuation estimates generally indicated that rates constructed on the traditional basis did not approach the line of confiscation.

Varied influences and forces were responsible for the policy taking form and for the persistence with which it dominated rate regulation in California. In the opinion of the writer its somewhat extraordinary vitality may be fully appreciated and understood only when it is viewed against the back-

ground of the California policy respecting utility financing

REGULATION of utilities by a state commission was first essayed in California in 1912. At this time broad authority over utility accounting and financing was vested in the state commission. This preceded by about three years the grant of the comprehensive authority over rates which the commission now possesses. Perhaps it was due to this initial control over utility financing, perhaps it was because the early commissioners foresaw the extreme importance of sound financial structures, that the outstanding accomplishment of the California commission is to be found not so much in its rate orders as in the rigid control it has exercised over the financial operations of the utilities under its jurisdiction.

In developing its financial policy the commission adhered to historical cost as the basis upon which accounts were required to be kept, security issues were authorized, and acquisitions approved and accounted for. Utility books with few, if any, exceptions have been required to reflect original cost. During the late epidemic of buying up and consolidating utility properties, the California commission, in passing acquisitions, consistently required pay-

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**Q** "IN developing its financial policy the commission adhered to historical cost as the basis upon which accounts were required to be kept, security issues were authorized, and acquisitions approved and accounted for. . . . During the late epidemic of buying up and consolidating utility properties, the California commission, in passing upon acquisitions, consistently required payments in excess of original cost less depreciation to be charged against surplus or to be carried in a suspense account until so charged off."



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ments in excess of original cost less depreciation to be charged against surplus or to be carried in a suspense account until so charged off.

**I**N a case before the commission involving the acquisition of the Snow Mountain property by the Pacific Gas & Electric Company, it appeared that the vendee company was acquiring the property at less than its historical cost less depreciation. It was pointed out that the commission had "repeatedly held that where a utility pays more for properties than the historical cost depreciated, it must charge the excess to profit and loss or surplus accounts," and the logic of the rule was deemed to require that the vendee company be authorized to credit its surplus with the amount by which historical cost depreciated exceeded the purchase price. Some slight departures from this rule have been made only under special circumstances.<sup>7</sup> Security issues against excessive payments were not allowed. The commission has said:

In authorizing the issue of stocks and bonds the commission has heretofore held that the actual cost of constructing public utility properties . . . giving due regard to the earnings thereof, is the proper basis for the capitalization of the properties. . . . To deviate from this policy merely because someone has acquired operating public utility property and for some reason has seen fit to pay for the property more than its actual or estimated cost depreciated, is in our opinion neither sound finance nor in the public interest.<sup>8</sup>

Thus overloaded capital structures were avoided. The result of this has been that the financial structures of the major California utilities fit rather closely the original cost of their properties.

**I**T is true, of course, that before there was public control of utility security

issues, stocks and bonds were issued in amounts and upon terms which would not now be approved. Early overissues, however, have become relatively unimportant as against the great issues based upon cost and occurring during the period of phenomenal utility growth commencing at about the same time state utility regulation began to function.

The rate policy of the California commission was a logical complement to the policy it has thus followed respecting accounts, security issues, and acquisitions. The two policies harmonized. Rates based upon the cost of the property and of the carrying cost of the capital adventured met in a reasonable way the financial requirements of the utilities and they were able to pay their fixed charges and adequate dividends on equity interests.

In 1933 the engineering and accounting staff of the commission compiled at the request of the legislature an extremely interesting set of tables giving (1) the approximate rate bases constructed upon the California basis of the major gas, electric, and telephone utilities; (2) their outstanding securities and reserves; (3) the carrying cost of their bond, preferred stock, and reserve moneys, and (4) the common stock dividend rates which each would earn on varying rates of return on the stated property bases.<sup>9</sup>

**T**AKING from this compilation as representative of the utility industry in the state the information given for two large gas and electric companies, one large electric company, and two gas companies, each operating exclusively within California, it appears that:





### Confidence in California Rate Regulation

*"... the expense and delay incident to the valuation process as it has been developed are probably the main reasons for a very considerable question in the public mind of the adequacy of the whole regulatory system. The desirability of a workable system which will enjoy a large measure of public confidence may cause a swing back towards the simple and expeditious cost policy for the establishment of rates—a policy which in California at least has worked well and built up a fine record of practical accomplishment."*

- 1—The aggregate of their rate bases undepreciated was \$1,100,000,000
- 2—The aggregate of the par value of their outstanding bonds and stock was ..... 1,084,000,000
- 3—The aggregate of their outstanding bonds and stock plus the aggregate of their depreciation reserves (usually invested in their property) was ..... 1,219,000,000
- 4—The excess of 3 over 1 was . 10.8%

Not all of these utilities showed the same relationship. Some had better structures than others. Some had other property and all had a considerable amount of construction work in progress which had not become operative, but in which capital had been invested. It will be seen from this that over all there exists a strikingly close relationship between the financial and rate-making set-ups.

These same tables and accompanying data showed that for these utilities taken as representative, a 6½ per cent return on an undepreciated rate base

in the aggregate would have permitted the payment of all fixed interest charges, including 6 per cent interest on depreciation reserves, preferred stock dividends, and left earnings of 6.9 per cent on their outstanding common stock. Since the date of this compilation extensive refinancing by each of these utilities has substantially lowered the cost of their bond and preferred stock money. A rough computation indicates that with the present cost of money a 6 per cent return would have resulted in about the same earning rate on outstanding common stock, as stated above.

WITH such a financial background there was little pressure for property bases exaggerated by estimates of replacement costs and intangibles with a consequent sharp increase in the yield of equity securities. Several of these utilities had their common stock widely distributed in small holdings. Their

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dividend rates were high enough to maintain the value of these securities. Holding company situations with the pressure for large common stock earnings did not prevail extensively. The utility industry in the state was a stable rather than a speculative business.

Another force contributing to the maintenance of the policy was a vigorous public ownership movement. There has long been in California a strong sentiment in favor of municipal ownership and operation of utilities. Water is almost universally administered by municipalities. There are strong and successful electric enterprises in Los Angeles, Pasadena, Glendale, Riverside, Palo Alto, and other cities. Long Beach and Palo Alto have their own gas plants. General satisfaction with the results of the administration of these enterprises has naturally given rise to agitation for an extension of public ownership to other communities. Electric utilities in particular have been hesitant to add fuel to this sentiment by resisting regulation of their rates upon the basis of cost and advancing claims to earnings upon a higher property base.

**S**TILL other influences contributed to the development of the policy—commissioners and forceful members of the staff who believed it was the only plan upon which regulation could be made to work, a staff trained from the earliest days of regulation to the use of the cost formula, and certain leaders of the utility industry who thought that in the long run the properties they administered would be better off with rates constructed upon this basis than on the basis of estimated claims of value.<sup>10</sup>

The policy was easy of administration. Rate cases were not unduly prolonged or expensive. There was seldom any serious question over the property base. The base of the utility as first established was taken as a starting point and the cost of net additions and betterments was added. Occasionally there would be a little controversy over current land values. Working cash was computed upon a generally accepted formula. Materials and supplies were allowed for on the basis of experience. There would usually be a minor controversy over the lives which should be employed in figuring a depreciation annuity. There would be some conflicting evidence over the reasonableness of operating expenses. The carrying cost of money was easily calculated. Considerable attention would be paid to the spread, incidence, and character of rates. Over all a general rate case was not a very expensive, tedious, or formidable affair.

**T**HE policy worked particularly well in the case of provisional or *interim* orders, whether for increased or decreased rates. During and after the war the utilities experienced heavy increases in operating costs. They applied for emergency increases. Time did not permit of protracted valuation proceedings. What they asked for was rates which would permit them to operate on a reasonable basis. The California commission granted many of these requests and granted them promptly. Later, when times became more settled and many of the utilities were earning more than a reasonable return, investigations were ordered and there was developed a procedure for *interim* reductions in rates pending the conclusion of full in-

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vestigations. Shortly after an investigation was started the commission's staff would present testimony showing the earning position of the utility on the traditional basis. Some evidence would also be presented indicative of whether changing price levels might tend to make rates constructed on the basis of investment confiscatory. The utility would then be ordered to show cause why an *interim* decrease in rates should not be directed. The hearing on the show cause order often took but a few days. The *interim* reduction ordered usually was about what was approved by final order after more extensive hearings.

THE rate policy under consideration was in effect a sufficient duration of time under widely varying economic conditions to warrant applying to it the pragmatic test. Was it possible to prescribe and enforce rates under this policy? How do rate levels in California compare with those in other jurisdictions? What has been the effect of the policy upon the utilities?

The writer of this article can vouch for an affirmative answer to the first query. During a service of nine years on the California commission, as but one of five commissioners, he heard and prepared the orders in a considerable number of rate cases. Some of

these cases were sharply contested. One went to the United States Supreme Court. In three cases, *interim* decreases were ordered. The aggregate net annual reductions ordered in these cases amounted in round figures to about \$6,000,000.

As to electric rates, the Federal Power Commission has recently issued a series of rate comparisons, an analysis of which shows California to be one of the low rate states.

IN the Los Angeles Telephone Rate Case<sup>11</sup> there was presented in evidence a very interesting comparison of telephone rates in fifteen of the largest cities of the United States. It carried rather unusual authenticity because it was prepared jointly by the chief telephone engineer of the California commission, an experienced engineer of the city of Los Angeles, and the rate engineer of the telephone company. This comparison brought up to September 1, 1936, as it affects residential telephone rates, indicated that: (1) In no city was there available for the lowest grade of service a lower rate than was granted in Los Angeles and San Francisco. In nine the rate was higher. (2) For a medium grade home there was no city having as low a rate as in these California cities. (3) For a large home with a high grade service one city had



"THE rate policy of the California commission was a logical complement to the policy it has . . . followed respecting accounts, security issues, and acquisitions. The two policies harmonized. Rates based upon the cost of the property and of the carrying cost of the capital adventured met in a reasonable way the financial requirements of the utilities and they were able to pay their fixed charges and adequate dividends on equity interests."

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a lower rate than the California cities, while twelve had higher rates. Comparative business telephone rates are less easily expressed. The study referred to showed the California cities to be enjoying business rates well below the average prevailing in other large cities.

As to the utilities, the application of this rate policy has not been injurious or harmful to them. Unembarrassed by unwieldy capital structures, they went through the depression without serious strain.

**T**HOSE utilities having common stock widely distributed did not lower their dividend rates until the servicing cost of capital had dropped to a point where further maintenance of a rate deemed proper prior to the depression would have attracted adverse criticism. Now and then a utility would draw upon its surplus for dividend payments. Most had comfortable surpluses available for this and other proper corporate purposes. California utilities were amongst the first to take advantage of low money costs and undertake extensive refinancing operations. In these operations they secured money on favorable terms. Broadly speaking, California gas, electric, and telephone companies experienced a tremendous growth between 1918 and 1930. Vast amounts of capital were needed. This capital flowed readily into their bonds, and their preferred and common stocks. Their common stocks were sufficiently esteemed so that they had no trouble with their junior financing. Indeed, the most violent critic of the rate policy which prevailed in California cannot say that it prevented capital flowing easily and readily into utility

securities or that it even tended to thwart or curtail their growth or weakened their financial integrity.

**W**HAT of the future of a rate-fixing policy such as this? The battering the historical cost theory has received at the hands of Federal court judges has left it decidedly "groggy." Whether it will come back at all depends upon the effect of certain general influences or tendencies which are at work. A lowering during the depression of the high price plateau which emerged from the World War and the gradual retirement of property installed before the period of higher prices have lessened the gap between original cost and reasonably estimated replacement cost, and the consequent pressure by utilities for the use of replacement cost estimates in constructing a property base. The Federal Power Commission and the Federal Communications Commission have prescribed accounting rules requiring fixed capital accounts to disclose the original cost of tangible property. State commissions more and more are putting into effect similar requirements.

With original cost of utility properties thus becoming generally known, public resistance to paying a return on estimated values in excess of actual cost may make itself felt in a way to influence future rate-making policies. Again, widespread criticism of overloaded capital structures of utility holding companies and of their operating subsidiaries is working towards a more general and rigid public supervision of their bond and stock issues. If and as these come to reflect the original cost of the operating properties, then a prescription of rates which will yield a re-

## THE CALIFORNIA RATE POLICY AND ITS RESULTS

turn on such cost will meet practical and reasonable financial requirements and be subject to lessened utility resistance.

FINALLY, the expense and delay incident to the valuation process as it has been developed are probably the main reasons for a very considerable question in the public mind of the ade-

quacy of the whole regulatory system. The desirability of a workable system which will enjoy a large measure of public confidence may cause a swing back towards the simple and expeditious cost policy for the establishment of rates—a policy which in California at least has worked well and built up a fine record of practical accomplishment.



### Footnotes

<sup>1</sup> *Re Los Angeles Gas & E. Corp.* (1930) 35 Cal. R. C. R. 443, P.U.R.1931A, 132.

<sup>2</sup> *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 77 L. ed. 1180, P.U.R.1933C, 229, 251.

<sup>3</sup> *Re Pacific Gas & E. Co.* 39 Cal. R. C. R. 209, 213.

<sup>4</sup> *San Joaquin Light & P. Corp. v. Railroad Commission*, 175 Cal. 74, P.U.R.1917E, 37.

<sup>5</sup> *United Fuel Gas Co. v. Kentucky R. Commission*, 278 U. S. 300, 73 L. ed. 390, P.U.R. 1929A, 433.

<sup>6</sup> *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 77 L. ed. 1180, P.U.R.1933C, 229, 240.

<sup>7</sup> *Re Snow Mountain Water & Power Co.* (1930) 34 Cal. R. C. R. 826.

<sup>8</sup> *Re California Water Service Co.* (1927) 30 Cal. R. C. 876, P.U.R.1928C, 516, 524.

<sup>9</sup> Page 1742, *Senate Journal*, 1933 Session of California Legislature.

<sup>10</sup> Mr. Harry S. Bauer, president of the Southern California Edison Company, Ltd., a large electric utility, in reporting to his stockholders on March 15, 1935, emphasized the fact that the company since 1912 had been under the supervision of the railroad commission, and that "almost the whole of its investment . . . has been submitted to and approved by that public authority." "Under the commission's regulations and practice," he went on to point out with apparent satisfaction, "valuations are made with reference to historical cost or 'prudent investment,' which meant 'that 'write-ups,' 'watered stock,' and similar 'padding' of investments have not been practiced" by the company.

<sup>11</sup> (1936) 39 Cal. R. C. R. 769, 14 P.U.R. (N.S.) 252.

### The TVA As a Sample of Utopia

"IT seems to me that the TVA represents an effort—an effort comparable in spirit and in technique, though not in range, to the admirable performance of the Scandinavian nations, the best any democracy has hitherto produced—to establish an equilibrium, within the limits of the capitalist economy, between inimical but not completely irreconcilable forces; an effort, that is, to adjust capitalism to the present realities and the actual trends of thought. If it succeeds along all its lines and in all its implications, it can conceivably provide the design for a solution of the problem of capitalism—that solution for which so many of us are searching, which will modify the existing capitalism in a rational and absolutely indispensable manner, but which will avoid the irreparable madness and agony of an abrupt and savage transformation. The TVA is planning only regionally, but sound and sane construction in one region can lead to a national purpose and a national objective. It can expand into a system that will coördinate and integrate an entire country. Perhaps the TVA is the embryo of something that all America will one day become. For myself, I see in it not only a hope, but a promise."

—EXCERPT FROM "A FOREIGNER LOOKS AT THE TVA."

By Mme. Odette Keun.



## A Message, the Human Voice, And the Radio

An ideal combination for legitimate publicity which, in the opinion of the author, might be made use of in dramatizing the efficiency, the value, and the cheapness of public utility service in thousands of homes.

By J. FRANK BEATTY

**A**MONG phenomena of the past decade has been the technical progress in the art of public relations. This advance in the technique of shaking the unsuspecting citizenry by the seat of the pants to induce shedding of reluctant dollars has been achieved without any extraordinary contribution on the part of public utilities.

Not for a moment have the dispensers of energy been unwilling to take a prominent part in the mass campaign to guide the habits and spending of a hundred million or so customers into dozens of different directions simultaneously, for this unhappy plight, a predepression offshoot, has not been a matter of choice.

Here is an industry nursing a black public relations eye, showing symptoms of cirrhosis of the rate schedule and jitters in the corporate structure, and all the while beset with a haunting fear of

the public ownership and operation demons.

To millions of citizens, who incidentally are customers, the public utility is a shrewd Frankenstein whose plush-lined and bottomless pockets are bulging with billions extorted from widows and orphans by the inexpensive pretext of charging wires with a dynamo or filling iron pipes with stale air to which has been added a minimum supply of heat units.

Something more than a score of years ago the insurance industry found itself in a similar predicament after the Hughes investigation. The dispensers of protection took a deep breath, scarcely bothering to rub salve on the bruises, and set about the difficult task of reselling the life insurance idea to the public. Today they are regarded as benefactors and they can concentrate on selling life insurance instead of building public confidence.



## A MESSAGE, THE HUMAN VOICE, AND THE RADIO

To improve customer relations, utilities must take the public into their confidence and frankly tell them the facts of utility life. They can do it by presenting arguments in mass periodicals, of course, although the masses aren't devoting as much time to their reading as they did a couple of decades ago when demands upon time were not so heavy. Or they can do it by using the key to the living room that radio's intimacy has made available.

The modern manner of living is swift and intense. Tuned to this pace is radio, a modern development. Not at all surprising, therefore, is the appreciation by the masses of the sponsorship of good radio programs by progressive business houses, for it is a part of their lives in varying degree from dawn to midnight.

After all, the utility's contribution to civilization has never received the public appreciation it deserves. The undertaking profession likes to say that a nation's living standards can be judged by the way in which its dead are placed to rest. Perhaps the formula is a good one. Yet how much greater is the utility's right to say that the march of progress and comfort can be traced by following the advance of the energy industries.

The story of utility service has been dramatized here and there on the air. It has been told in scattered communities all over the nation. The American Gas Association is engaged in a coöperative appliance campaign on a nation-wide basis, to cite an instance. These efforts are getting results, but they are only a drop in the bucket. Much more effective would be a nation-wide, regional, and local dramatization of the energy business — its

history, its trials, its triumphs, its donations to the cause of happy living, its constantly improving efficiency, its inadequately appreciated rate reductions during the years, its quick recovery after natural catastrophe, its loyal employees, the cost of its benefits as compared to other family conveniences, its place in war, its contributions to medicine, its part in the detection of crime, the wastefulness of duplicated facilities.

WHILE an exhaustive analysis of the reasons behind the rise and fall of the public relations of public utilities is not within the scope of this discussion, a hasty glance at what has happened, as seen through the unbiased eyes of a side-line observer, will supply appropriate background for a consideration of radio as a means of influencing public opinion.

It was almost a decade ago that an alert Congress, ever anxious to guard the interests of the electorate and incidentally maintain a satisfying share of the nation's headlines, directed the Federal Trade Commission to inquire into the private lives of public utilities. Carrying out its assignment, the commission dispatched investigators to explore the files and books of gas and electric utilities, all the way from local operators to top holding companies.

Less difficult to analyze and more likely to catch the public eye were such letters and exhibits as could be classed as "propaganda," a once respectable word whose reputation had been debauched in the World War. Here was a "natural," from a publicity standpoint, this opportunity to expose indulgence in the popular game of propaganda. The very word itself was



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blessed with onomatopoeitic attributes that quickly captured the public fancy.

Everyone knows what happened to this organized effort of the energy industries to get along with their public, just as governmental units themselves and railroads and churches and colleges and public schools and grocery stores were trying to get along with theirs.

**D**AY after day produced a constant parade of headlines about Federal probe discovering this and trade commission inquiry revealing that. Worst of all from the utilities' standpoint was that they were placed on the defensive, yet had no chance to defend—a procedure familiar to Washington observers.

Literature favorable to public utilities was discovered in the class room. University laboratories were shedding new light on scientific problems with the aid of utility funds. Utilities were contacting public officials and legislators in an effort to plead their cause. Lecturers were telling the utility story to Rotary and Kiwanis clubs. Trade associations were spreading the message. It was even rumored that a utility executive had been seen at lunch with a congressman.

Meantime, reporters covering the trade commission accepted sage tips from the commission's public informa-

tion (propaganda?) staff and excerpted the flashier portions of technical testimony as indicated on advance copies of the examiner's reports which were used as the basis for the actual investigating. Naturally they wrote heatedly of scandal and connivance, and just as naturally the headline writers gave these stories all the traffic would bear—and sometimes more.

Not far behind the headline writers were the penners of editorials. The thing soon sprouted into a national atrocity and in a few short weeks a considerable amount of whatever place that utilities had captured in the public heart was being headlined half way out of existence. Pretty soon nobody loved the poor utility. It had been bad enough to put up with the trivial bleatings of the demagogue and the sporadic attempts at public operation, not to mention some of the regulations and rate clipping of public boards, but here was a series of blows for which not even purest honesty and unsullied virginity could serve as a defense, were a defense permitted.

**B**ACK in those '20s, public opinion had favored the development of big corporations and bigger holding companies. Corporate names had been emblazoned in the public prints and confided over store counters by the



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## A MESSAGE, THE HUMAN VOICE, AND THE RADIO

corner barber and the messenger boy until hundreds of businesses had been vested with reputations for stability and earning power not in keeping with the state of their sales charts and balance sheets.

What had happened was that emotional currents had been started in the public mind, and soon millions were riding the ticker-tape route to paper profits. At the same time other currents were getting under way—currents that rocked the foundations of the utility structure and threatened the very existence of its component industries.

Whether utilities were vicious swayers of public opinion, whether they were entirely without sin, or whether they merely were average entrepreneurs—these attributes are not at issue nor is moralizing on the demoralization of the industry's public relations to be attempted.

It is enough to say that they have been demoralized in varying degrees, a statement few are likely to protest, for students of public relations who once pointed to utilities as efficient moulders of opinion now see them fighting to speak above a whisper and perhaps whistling in the dark to keep up courage as they ponder public regulation and as they feel the pulse of the public ownership trend.

**B**UT obviously in a democratic nation the right of free speech is available. Every righteous cause is born with the privilege of pleading its case to the public. Available to all but those who would plot against the rights and morals of the citizenry are many media of mass communication. The question then becomes one of method.

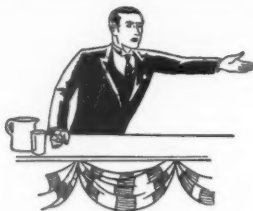
First there are newspapers, which have reported in considerable detail developments in favor of and contrary to the interests of utilities. So long as it's news, the press will recount daily what happens with commendable accuracy. And if it happens to be news—especially bad news—about utilities, the columns will tell the story. The difficulty is that much of the news is made by publicity-hungry politicians and by public bodies that more often than not are acting adversely to the interests of utilities.

Unfortunately the indictment often provides livelier reading than the legitimate defense, and naturally gets the bigger headlines and spicier treatment. Thus the defense will have two strikes against it before it can be delivered, though the press may be inspired with a fierce desire for fair play. Since utilities have become a plaything of politicians, any printed defense must be startling, assuming it gets equivalent space and position, if the public is to get a fair conception of the facts. Of course the newspaper advertising columns are open, but it is difficult to entice readers into absorbing lengthy and logical arguments.

**W**ITH magazines of general circulation the situation is somewhat similar, although class publications provide excellent *entre* to particular groups and magazine editorial treatment is more mature. As to school contacts, lectures, motion pictures, and other means of reaching the public, little need be said for the effects of the Federal inquiry of a few years ago have by no means been dissipated.

What, then, can radio offer?

After all, radio has transmitted its



### The Attitude of Youth

**"T**HAT portion of the public which today is divesting itself of adolescence will determine who is to manage the nation's utilities—private enterprise or public authorities. Instead of being saturated with only the antagonistic side of the utility situation, youth is beginning to realize the benefits that energy services are bringing into the home. Consequently the time is ripe to instill in youth a confidence in the public utility of today. Here radio rises to proclaim that it enjoys both the attention and the confidence of youth."

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share of oratory antagonistic to the utility. Crusading clergy and pulsating politicians have taken to the air in hordes, recognizing both the intimacy of its relation with the fireside, the frequency of contact, and the persuasive power which is credited to the audible message.

First of all, the utility entrepreneur is interested in the fact that public regulators are not inclined to interfere with publicity via the loudspeaker unless it becomes offensive, and radio users are fast learning that overheated messages are likely to get a chilly reception.

About a decade ago the Chesapeake & Potomac Telephone Company was operating its own broadcast station in Washington, to the accompaniment of frequent frowns from its auditing department. The losses were charged to operating expenses until the Capital authorities became aroused and em-

barked on a crusade against the C. & P. The controversy ended when C. & P. disposed of its station, after a ruling from the bench that it might be better to charge the losses to surplus.

**B**UT utility radio publicity, in general, can be charged to operating expenses without incurring regulatory wrath. Telephone companies, for example, have used a good deal of radio in announcing rate reductions. The criterion seems to lie in the type of publicity. If it is legitimate there is little reason to fear interference from public bodies. Even advertising is recognized as a legitimate operating expense if expenditure is kept within reason.

While the transmission of audible sound through the air is a development of little more than a decade, it employs a primitive means of exchanging information—the voice. After all, humans learned to talk long before

## A MESSAGE, THE HUMAN VOICE, AND THE RADIO

they began to write and read, and psychologists often say that they remember what they have heard longer than what they have read.<sup>1</sup>

**R**ADIO, besides supplying entertainment and information in sugar-coated form, interests many business firms because it offers a means of publicity that capitalizes on the warmth of the human voice.

Radio experts will point out that the listening group or individual, more often than not, will seek the program and that in many cases it is a daily or weekly habit that is eagerly anticipated and favorably recalled. Enjoyment is augmented, they explain, by the fact that a large proportion of radio listening is by groups, an advantage shared by both radio and the theater. Blessed with an anticipating family group, they continue, radio is able to reach particular members of the group, or all of them, and can deliver a message to father, to mother, to adolescents approaching the voting age, and to children, the latter being the most suggestible of all, as any parent knows.

This would be of undoubted advantage to utilities. Assume the case of a family in which the adults may have been influenced by antiutility propa-

ganda. Here, it is suggested, is an ideal setting for a dramatized message that tells the utility story to willing listeners and at the same time the story is delivered to younger folk who have not been subject to years of antiutility information and whose attitudes will not be developed in a one-sided environment entirely antagonistic to utilities. And after all, more than a million young men and women reach their maturity every year.

**T**HAT portion of the public which today is divesting itself of adolescence will determine who is to manage the nation's utilities — private enterprise or public authorities. Instead of being saturated with only the antagonistic side of the utility situation, youth is beginning to realize the benefits that energy services are bringing into the home. Consequently the time is ripe to instill in youth a confidence in the public utility of today. Here radio rises to proclaim that it enjoys both the attention and the confidence of youth.

Suppose the use of the radio is in connection with a program of entertainment, as in the case of advertisers. Then assuming the broadcast program is good and the utility's message is proper, the listener would be likely to be left with a reaction favorable to the sponsor and in a good share of cases would determine to tune in the next program in the series. This is one of the peculiarities claimed for broadcasting — the loyalty that listeners show to favorite programs. The decision to tune in the program again is said to set up a time habit in the listener's routine, which is an advantage to the user who has a message to transmit.

<sup>1</sup> Cantril and Allport, in a series of studies at Harvard in 1934, made an interesting analysis of radio broadcasting as a publicity medium. Briefly, they concluded that dissemination was more widespread and effective by reason of the fact that the listener seeks the message, rather than the message seeking the audience, as in other media. They also found that broadcasting could take advantage of time habits of the public by regular schedules. According to these two experts, three-fourths of radio listeners are influenced occasionally by publicity they hear on the air; two-fifths occasionally made a note of the matter, while one-third even noted details such as phone numbers or addresses of sponsors. *Broadcasting Magazine*, October 15, 1935.

## PUBLIC UTILITIES FORTNIGHTLY

**Q** "... obviously in a democratic nation the right of free speech is available. Every righteous cause is born with the privilege of pleading its case to the public. Available to all but those who would plot against the rights and morals of the citizenry are many media of mass communication. The question then becomes one of method."



Incidentally, this form of radio use is said to develop favorable employee and stockholder relations, because of the pride they will take in a high-grade utility program.

**T**HE time factor is important to those who would convey messages to the masses. The broadcast word is either heard at the instant it is uttered or it is missed entirely. In the case of the printed word, the reader can skim over it, read it thoroughly, or put it aside until later. But radio's advantage, if the program is heard, lies in its potency at the moment of impact due to the conceded power of the auditory media to leave an impression on the listener's mind.

Different types and sizes of audiences are reached by selection of broadcast time (women during the day, children after school and in the evening, etc.), and by use of individual stations and groups of stations for network, local studio, and electrically transcribed programs, a careful study has revealed that 22,869,000 families out of the 30,919,300 in the nation had radios in their homes at the beginning of 1936.

The 22,869,000 total, which rose an estimated 1,400,000 during the past year, represents the potential number of homes that can be reached by radio. It is based on a compilation covering each of the 3,078 counties of the United States, ranging from the 20

radio sets in Alpine county, California, to the 908,300 sets in Cook county, Illinois. Then there are in addition several million automobile radio receivers.

Methods have been developed for use in calculating the cost of reaching a radio listener. Niagara Hudson Power Corporation investigated the cost-per-listener of its radio effort in 1935 and found it to be \$3.46 per thousand sets actually listening to a program. Early in 1936, when General Electric Co. cooperated with forty-three utility properties in the "Melody Master" better light program on a National Broadcasting Company network at the supposedly worthless 11-11:30 P.M. period Sunday evenings, the cost per thousand listeners reached was found to be \$4.

**T**HE two instances just cited were picked at random. They represent a broadcasting effort of a regional operator and a cooperative campaign involving an appliance maker and local utility operators. The radio cost naturally varies according to the talent used, station or network selected, and choice of time.

The General Electric cooperative series, despite its lack of high-pressure ballyhoo and the selection of an unusually late hour, was heard by as many as 800,000, a coincidental telephone survey showed. It was broad-

## A MESSAGE, THE HUMAN VOICE, AND THE RADIO

cast on a small network which had been cut to 13 stations, a privilege not possible during the more desirable hours earlier in the evening. About 7.7 per cent of urban residential meters were reached at this hour, when a large share of the population is supposed to be in bed or at least out of the living room.

Consolidated Edison Co. of New York, which sponsors local programs in seven languages, learned by a survey that its radio publicity was reaching 250,000 persons. American Gas Association, sponsoring "The Mystery Chef" during daytime hours on a nation-wide basis, started with a regional campaign in September, 1935, and is still expanding the coöperative effort.

Recently the coöperative spirit among and within industries, has been spreading rapidly, but utilities, having burned their fingers in the past, are a bit timid on the subject. Perhaps it might be well to intensify research on what is good for the public as contrasted with the time and money devoted to a study of what is good for utilities.

It is a coöperative age. The banking industry recently decided the time was ripe to improve their public relations and one of the first steps was the preparation of a dignified and instructive network radio program that started in November. It is sponsored by two score big banks. Some weeks

ago at the November elections, California voters defeated Proposition No. 22, a referendum on a state law placing a heavy tax on chain stores, after the principal chain retailers of the state had coöperated in a joint statewide publicity campaign based on a program on a small network as well as liberal use of printed media. While the campaign was aimed directly at the proposed tax, the radio program had attracted such a large following and had developed so much good will that the chain stores decided to continue the program indefinitely.

After the American Gas Association campaign had been under way a while, an executive answered a question as to its achievements in this manner:

Something is being said, something is being done, something is being accomplished along the proper educational line to impress modern gas cookery favorably in the minds of homemakers.

Big utility problems usually can be traced to little troubles that were ignored in their early and localized stages. Possibly an injection or two of good will, and facts at the right spot, could have prevented many of them. Possibly radio is the serum that can help to lay low the streptococci when first signs of infection appear.

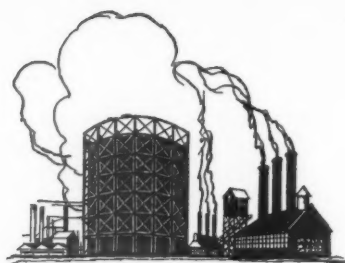
People are listening. People are reading. People are voting (see newspapers of November 4, 1936). People are thinking about public problems, and money and management. The trend is worth noting.

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¶ "MAY we not hope that the wave of economy of government which is coming with realization that the pump is going strong again may bring the realization that cities need not draw from the Federal taxpayer in order to get good electric service at lowest rates."

—CHARLES W. KELLOGG  
President, Edison Electric Institute.





## New and Better Uses of Gas

Improvements in appliances constantly developed as the result of painstaking research add to the convenience, economy, and attractiveness of the domestic gas-heating service.

BY CLIFFORDE E. PAIGE

PRESIDENT, THE BROOKLYN UNION GAS COMPANY

**D**ISCOVERIES in the field of research are made so rapidly we cannot appreciate the thrill and drama which is a part of each accomplishment.

Almost every day we see, for example, some new feature brought out in connection with gas appliances. Here, we have a new method of insulation, a more precise control; there, a new feature providing better economy or satisfaction, a more appealing line or color.

The gas company sales a product in which the buyer has no interest. He never even saw a cubic foot of gas. His interest is entirely in what this product may do for him.

Certain services, added up, provide a standard of living. Where competition gives him selection, he looks around to see where and what provides the best return for his money. He is buying the service, so the equipment which translates the product to his requirements must have all the advan-

tages that any other service may offer.

No matter how beautiful the console, it will not satisfy a buyer of a radio if there are no tubes. No matter how efficient the receiving set, the proud housewife does not want her living room looking like a machine shop. We must have efficiency to get the most out of appliances, and we must have appearance to make the efficiency appealing to the customer.

Persuading the customer to buy involves presenting facts of interest to the prospect. Salesmanship becomes a more and more important adjunct to quality of goods, as competition grows keener and buyers become ever more discriminating.

**A**N outstanding development in domestic gas appliances is the renewed faith in their possibilities, expressed recently by their manufacturers but more especially by those who sell them to consumers of gas. Most of



## NEW AND BETTER USES OF GAS

this equipment is properly sold, so it stays sold.

The appliances have been and constantly are being improved. The customer gets the immediate benefit; the only advantage to the company, many times, is the protection assured against competitive raids. Most developments or changes in gas appliances, as in other things, come gradually. Changes in engineering details are made cautiously so as to assure expected performance. Changes in line or color may be more radical but still must be made with an eye to customer attitude and acceptance.

The thermal efficiency of the top burners of gas ranges has increased by about fifty per cent in the last four years. Increased speed follows naturally; for example, an increase of top burner efficiency of 45 per cent with 9,000 B.T.U. per hour input, results in a decrease in the time required to heat five pounds of water through 140° F. from over sixteen to less than eleven minutes. New design burners having a higher input rate bring the eleven down to eight and one-half minutes. These larger burners contribute toward better heat distribution and are especially effective for large utensils.

**G**AS range ovens are now covered with a continuous, unbroken blanket of insulation, thus assuring heat with minimum loss. This makes for cooler cooking. A recent test showed a gas range with an oven temperature of 500° F. and the average surface temperature only 26° above that of the room.

Preheating speeds of ovens are being constantly reduced. Not long ago, seventeen and one-half minutes were

required to heat an oven to 500° F. Speeds of ten minutes and, in one case, five minutes, have been attained on recent models. Important reasons for these remarkable speeds are employment of higher gas input burners and less restricted circulation — that is, more direct venting of flue gases from combustion chambers to oven.

Broiler temperatures may now be markedly higher. This is made possible by the use of radiant screens, ceramic materials, and higher combustion rates per unit of port area. About 100° F. increase in broiler temperature is now possible, and the distribution of heat is so improved that uniform temperature may be had over the entire broiler rack area. Special broiler racks which permit "smokeless" broiling have been developed. Rotating broiler racks used in conjunction with "pull-out" broilers are available. These improvements add greatly to the convenience and economy of gas ranges.

**W**ATER heating by gas is of continuous interest to engineers. There are now special types of heaters for practically every need. In the last two years, the over-all efficiency of the automatic storage type of heater has been increased from around 45 per cent to well over 50 per cent. On other types, the thermal efficiency has been brought up from 65 per cent to 70 per cent and over. These notable increases have been attained largely by improved insulating methods, reduced flue losses, and greater heating areas, as provided by such things as extended fin type surfaces. While efficiency has been the goal of the engineer, salesmen have remembered the importance of attractiveness in selling, and now heaters for

### Future for Gas Service



**“P**EOPLE do not buy gas; they buy gas service. Gas service develops directly with improved equipment, reasonable rates, and most emphatically, with personal endeavor. It requires little imagination to see the tremendous possibilities of the future for gas service. To this end all agencies work, bringing constantly higher standards of performance and accomplishment.”

water may be had to harmonize with any surrounding equipment.

Central house heating, which represents such enormous possibilities for volume selling to both the natural gas and manufactured gas companies, becomes each year more popular. Improved automatic equipment has put this ideal type of heating within the reach of thousands of families who have heretofore felt that gas heat was too expensive. Special house-heating rates offered by almost all companies have accelerated the introduction of this type of equipment, so that the sale of gas for heating purposes becomes of more and more importance to the industry.

Warm air, hot water, or steam—they have all been worked out scientifically so that with suitable rate schedules now applying in most districts, perfect heat is possible at reasonable cost.

**T**HE gas furnace of today may look like a buffet or a radio, the design and appearance of the appliance permitting an installation in harmony with almost any surroundings. This equipment often brings to the home owner an additional living room in his basement, and many are the interesting

uses to which such basements are put.

Salesmen are trained by the companies not to overstate the possibilities of gas heating nor to promise economies which probably cannot be realized. Very early, it was learned that this kind of selling brought only disappointment and disaster. It is possible to estimate heating costs accurately by the Degree Day method, and this is used by all gas companies.

Gas companies coöperate with all sorts of local talent to insure heating satisfaction. For instance, in many cases the gas company can help the customer to get his house insulated as part of the heating equipment installation. People are rapidly coming to realize that no matter what heat is used, insulation will save money.

Even in northern cities, gas companies advertise that they can compete with any other fuel. The collateral advantages have come to be so much appreciated that people who adopt this form of heating seldom change to any other.

**S**PACE heaters, particularly the radiant type, show a most striking change in appearance. They are now decorative and can be made to harmon-

## NEW AND BETTER USES OF GAS

ize with any color or period. Recent models are even streamlined. One very popular type is the circulating heater, *i.e.*, one whose warmth is circulated by a fan. These heaters may be hung from the ceiling or otherwise placed out of the way. They provide convenience as does the individual motor drive which is used in a machine shop.

Summer air conditioning for domestic application appeals to the imagination of every one who values home comfort. While gas equipment is now available for many types of air conditioning service, its wide acceptance must depend largely on the additional research now under way. Up to now, domestic installations have been too individualized to permit anything like mass undertaking. The price of gas equipment is being steadily brought down.

In refrigeration, a distinctly new field is opening up for cooling by gas on a larger scale than has been possible heretofore. The air-cooled type of gas refrigerator now so widely used is as

far ahead of any similar device as any mechanical refrigerator is ahead of an ice box. Here we find always new developments in detail.

THE foregoing outline indicates briefly what has recently been done to build up new uses for gas and to make old uses more efficient. The material has been procured somewhat from the large display of gas equipment recently shown at the convention of the American Gas Association, partly from the American Gas Association staff and laboratory, and partly from individual activities throughout the industry.

People do not buy gas; they buy gas service. Gas service develops directly with improved equipment, reasonable rates, and most emphatically, with personal endeavor.

It requires little imagination to see the tremendous possibilities of the future for gas service. To this end, all agencies work, bringing constantly higher standards of performance and accomplishment.



### Diesel Transportation in the Netherlands

A RECENT report to the Holland government indicated that more comfortable and less expensive Diesel and electric trains are ousting the steam locomotives of the Dutch railways. In time it is believed all steam engines will disappear from Holland.

In 1938, when the new electric railway network will be completed, very fast streamlined trains will operate on the busiest lines, while improved Diesel trains will handle the traffic on the other lines.

Refreshment coaches are being installed in the new electric trains and, should they prove successful, will be added to the other lines.

Quite recently the first Diesel-driven taxicab appeared for a trial on the streets of Amsterdam. Diesel busses have long been in operation in Holland.



# Financial News and Comment

By OWEN ELY

## *Outlook for New Bond Issues More Encouraging*

THE reception afforded investment offerings during the fortnight ended July 3rd, as well as the improved tone of the stock and bond markets, indicates that the general refunding program may be resumed somewhat sooner than previously anticipated. Important issues which appeared during the last two weeks included \$25,000,000 New York Telephone refunding 3½s of 1967; \$17,029,000 Buffalo Niagara Electric general and refunding 3½s of 1967 and \$3,420,000 serial debenture 2-3½s; \$750,000 Central Ohio Light & Power Co. convertible 4½ per cent notes due 1940; and \$80,000,000 Union Electric Company of Missouri first and collateral 3½s of 1962 and \$15,000,000 3 per cent notes due 1942. The \$7,250,000 Southwestern Light & Power first 4s of 1967 are expected to be offered shortly. These offerings somewhat "cleared the slate" of important issues already registered, but doubtless new registrations will pave the way for a considerable volume of fall financing.

Westchester Lighting Company, wholly owned subsidiary of Consolidated Edison, filed registration June 30th for an issue of \$25,000,000 general 3½s of 1967, guaranteed as to interest and principal by the parent company.

Greyhound Corporation has filed application for stock issues of three of its affiliates, stating frankly that these plans were necessary to avoid "the penalties of the corporation surtax on undistributed profits."

Total bond flotations of all kinds in June were the largest since January, although considerably smaller than for the same month last year. In the half year to June 30th, utilities led all major groups in payment of bonds before maturity, \$930,631,000 bonds having been redeemed, compared with \$462,660 new bond issues offered. In 1936 the reverse was true, more bonds having been offered than the amount redeemed. While it is probable that third quarter financing will permit the industry to readjust its cash position, *The Times* comments that "it appears from the figures for the current half year that the industry is utilizing its earnings for the calling of obligations wherever possible, in order to scale down fixed charges, even placing this item before expenditures for capital replacements."

## *SEC Rebels at "Tombstone" Ads*

ALLEN E. Throop, general counsel of the SEC, in an address before the New York Financial Advertisers Association, has made a plea for bigger and better newspaper ads in connection with new offerings.

It is a strange commentary on the attempt of Washington to give investors more knowledge of new issues, that actually the resulting publicity has been less effective. It is to be doubted whether any large percentage of security buyers—except the big institutions, which in any event have special facilities for in-

## FINANCIAL NEWS AND COMMENT

vestigation—ever read the prospectus of a new offering “from cover to cover.” Essential facts, while perhaps not “buried,” are nevertheless not conveniently summarized for quick analysis. Prospectus writers have even hesitated to indicate earnings per share in the case of a stock offering, or “number of times interest earned” in the case of a bond offering, evidently for fear that they would be tripped up over some technical error in presenting secondary facts.

And investors are further handicapped by having no newspaper or other summary of essential facts. Only Morgan Stanley & Co. and a few other banking houses have continued to publish the old-fashioned full-length descriptive advertisements. On common stock issues there is rarely more than a “card” advertisement. Most issuing houses have doubtless felt that it is better to stick to the letter of the law and run only the short, or “tombstone,” type of ad, which states that all information is obtainable from the prospectus.

THE SEC now apparently realizes the need for informative ads. To quote Mr. Throop:

Two years ago Judge Burns in his address at Atlantic City described the newspaper prospectus and expressed the hope that it would prove a practicable means of stimulating the adequate advertising of new issues. As you may remember, the rules governing this “long-form” advertisement were worked out with the very real assistance of representatives of the leading financial advertisers and advertising media. The objective was an advertisement of approximately one-quarter of a page of standard news print which would give the investor a reasonably complete sketch of the business for which his money would be sought.

This type of advertisement, I am glad to say, has not only proved to be workable, but has served a public purpose in putting before prospective investors in compact form some of the more pertinent facts bearing on the security offered. . . .

As I understand it, the customary objection to the long-form advertisement is that it may in some way increase the potential liability of underwriters. It is suggested that, in summarizing information, there is a risk of omitting data, the absence of which may make the contents of the advertise-

ment affirmatively misleading. I submit that this potential liability, at least so far as it is based upon a newspaper prospectus, may be so reduced by the exercise of reasonable care as to become practically negligible . . . I venture to suggest that you consider whether, even if the long-form advertisement is not strictly necessary, it nevertheless may not offer the opportunity for increased institutional prestige—valuable not only to the individual firms who utilize it but to the underwriting business as a whole. In short, past consideration by underwriters of the value of the long-form advertisement may well have given too little attention to the possibility that its admittedly greater cost will in the long run represent a sound investment.

### *Standard Gas Reorganization Plan Opposed*

A COMMITTEE of note-holders and bondholders headed by George McAneny has indicated its opposition to the amended plan of reorganization of the Standard Gas and Electric Company, now pending in the United States District Court of Delaware. The committee opposed acceptance of a \$1,000,000 settlement of the projected \$80,000,000 suit against officers and directors of the system, which settlement had been made a part of the reorganization plan. In a letter to security holders the committee stated, “We believe the causes of action set forth are valid and will stand the test of a trial. It has been admitted by certain interests favoring the settlement of the suit that the proposed defendants (other than Ladenburg, Thalmann & Co.) can, in the aggregate, respond to judgment of at least \$7,500,000.” The committee adds that “such figure could be safely doubled or trebled.”

It is also argued that an independent trustee should be appointed by the court to manage the affairs of Standard Gas and Electric during reorganization.

When the plan was presented to the court on May 17th, the majority of committees representing the various classes of security holders was reported as supporting it. However, the Allen committee, representing the \$4 preferred stock, stated then that the \$4 shareholders

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"were not receiving just treatment." Recently the McGowan committee, which also represents the \$4 preferred shareholders, requested acceptance of the plan in a letter accompanying the annual report of Standard Gas and Electric. The opposition of the McAneny committee may lead to some further delay, however.

### *The FCC and the Proxy Problem*

THE FCC has accused American Telephone and Telegraph Co. of being a "self-perpetuating body." A report by the commission asserts that members of the board are "the agreed choice of the president and other members of the board." "Since 1905," the document continues, "the proxy machinery has been highly developed, until in the last decade and a half it has, with few exceptions, consisted principally of the executive committee, and has from year to year voted between 55 and 75 per cent of the stock outstanding and in most cases over 95 per cent of the shares voted at the annual meeting." The investigators also said the company's last two presidents had been the selection of the outgoing presidents.

The FCC has thus far tried in vain to disclose "a skeleton in the closet" of the Bell system. The company is widely regarded as an outstanding example of American business efficiency and honest administration. The latest thrust by the FCC has no more merit than its previous criticisms.

The commission fails to realize that probably nine-tenths of all corporation directorates tend to be self-perpetuating so long as the company is successfully administered. The American stockholder is noted for his absentee ownership and lack of interest—so much so that when a stockholder appears at an annual meeting and queries or criticizes the management, it usually becomes headline news. While this system (or lack of system) is generally condemned by economic critics, apparently nothing can be done about it, since the depression failed

to shake the stockholder out of his lethargy save in a few temporary cases. Perhaps the FCC would like to introduce the British system, where stockholders appear to take an active interest in their chairman's annual speeches—as indicated by the printed parenthetical comments such as "hear, hear" and "applause."

Rather than singling out American Telephone, the FCC might well devote its efforts to solving the pressing proxy problem which now confronts many companies—that of acquiring a majority vote to permit even the holding of a meeting. Due to the various regulations which tend to prevent the voting of stock held in brokers' names, and which discourage brokers from taking any interest in the matter, it has become somewhat of a problem to obtain the proxies representing a "quorum," where the stock is widely distributed. The whole proxy problem needs attention, but the FCC's attack seems a waste of energy. Although its hearings are closed, the FCC is not expected to file reports until next year.

### *Electric Power & Light Corporation*

IN a recent analysis of Electric Power & Light Corporation, Frazier Jelke & Co. estimate consolidated earnings for the year ended June 30th at \$1.25 a share on the common stock, which compares with \$1.03 for the twelve months ended May 31st. As there has been a great deal of market interest in the stock during the past year, excerpts from the firm's analysis of recapitalization possibilities is presented here:

Until United Gas Corporation liquidates a back dividend accumulation of \$11,301,777 (\$25.12½ a share on June 30, 1937) on 449,822 shares of \$7 first preferred stock, Electric Power & Light Corporation can derive no income from the 884,680 shares of \$7 second preferred stock of United Gas which the holding company owns. Last year, after payment of only one year's dividend requirements on United Gas Corporation first preferred stock (actually only half a year's dividends were distributed), Electric Power



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& Light's accrued (but at present unrealizable) equity in earnings from its investment in United Gas Corporation second preferred amounted to \$6,776,037.

*How long will it take United Gas Corporation to pay off back dividend accumulations on the first preferred stock?* United Gas's earnings last year were \$11,652,583 before deduction of surtaxes on undistributed profits. One year's dividend requirements on United Gas first preferred stock amount to \$3,148,754. . . . Assuming a moderate increase in earnings, the accrual might possibly be cleared up in two years. Only "regular" payments are being made at present. After the accrual is liquidated, dividends on the second preferred stock of United Gas Corporation, practically all of which is owned by Electric Power & Light, could be initiated. *This would open the way for dividend resumption on Electric Power & Light first preferred.* In the meantime, income from the other subsidiaries of Electric Power & Light may improve.

The total back dividend accrual on Electric Power & Light first preferred stocks is \$24,981,528. The total back dividend accumulation on United Gas Corporation second preferred stock is \$33,028,053. The back dividend accumulation on the United Gas Corporation second preferred stock owned, therefore, is \$8,046,505 greater than the back dividend accumulation on Electric Power & Light first preferred. *However distant dividend resumption on Electric Power & Light common may be, it does not seem so far away, therefore, as dividend payments on United Gas common stock.* There are 82,964 shares of \$7 second preferred stock of Electric Power & Light outstanding on which there is a back dividend accumulation of \$36.75 a share, and the total accumulations on Electric Power & Light first preferred and second preferred aggregate only about \$28,030,455, or \$4,997,598 less than the accumulation on United Gas second preferred. . . .

*Perhaps a logical solution of the whole situation would be to merge Electric Power & Light and United Gas into a new consolidated company, possibly segregating some unintegrated electric properties of Electric Power & Light.*

As Electric Power & Light is now constituted, subsidiaries outside of United Gas Corporation comfortably carry the holding company's debentures but allow only small earnings accruals (last year no cash income) for the holding company's first preferred stock. The largest of the electric subsidiaries is Utah Power & Light Corporation. This company has a dividend accumulation of \$5,500,000 on its preferred stock, of which Electric Power & Light owns only 1 per cent of the total outstanding. The holding company's equity in the earnings of the two Dallas properties ap-

parently was around \$1,000,000. Only a very small income was derived in 1936 from Arkansas Power & Light. Louisiana Power & Light apparently contributed between \$800,000 and \$900,000. Mississippi Power & Light contributed practically nothing, even on an accrual basis; and New Orleans Public Service, less than \$100,000. Power Securities Corporation, which controls Idaho Power, on an accrual basis, added about \$780,000.

### *What TVA Has Accomplished*

**D**URING the four years of its existence, TVA has spent nearly \$151,000,000, and its new appropriation for the fiscal year of 1937-38 is about \$40,000,000. Norris and Wheeler dams have been completed, while Pickwick, Gunter'sville, and Chickamauga are under construction. Work is also scheduled to begin this summer on the \$112,000,000 Gilbertsville (Kentucky) dam. The agency now has some 13,500 employees.

In the field of navigation and flood control some results have been accomplished, though hardly commensurate with the huge expenditure. The flood crest of the Tennessee river in March, 1936, was reduced, eliminating possible damages estimated at \$750,000; and this year the inflow from the flooded Ohio river was retarded. During the dry summer last year navigation was maintained in the lower Tennessee river by release of water from the reservoir.

TVA's power projects have been retarded by litigation. It has developed a network of rural transmission lines in the vicinity of Wilson dam, by purchase or construction. It has power contracts with several cities, including Memphis, Knoxville, and Jackson; and two industrial customers, Aluminum Company of America and Monsanto Chemical Company.

Some important work has been done in developing fertilizers, together with local reforestation, soil erosion control, development of ceramics, etc. But will the final investment, which will probably total over \$300,000,000, yield national benefits sufficiently valuable to cover all

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costs, including taxes and amortization, and net \$18,000,000 in addition, as a private company would be expected to do?

### *Corporate News*

**D**ESPITE some opposition, recapitalization of International Paper & Power Co. was approved by a large majority of stockholders June 23rd. As previously detailed in this department, preferred stockholders under the plan will forego dividend arrears and accept a lower return on the new stock issued to them; while common stockholders will give up more than half their equity. The recapitalization will eliminate a \$19,000,000 deficit, permitting resumption of dividends. Final action by the SEC is necessary before recapitalization can be effected. President Cullen, when questioned regarding the value of the stock of International Hydro-Electric System, stated that he believed the stock had no value at present and that much would have to be done to the properties before the stock has any real value.

He also announced that profits for the first half of this year would be somewhat in excess of \$4,750,000, compared with only \$262,542 in the same period last year. This was despite a change in book-keeping methods, as to treatment of inventory, which would have the effect of reducing earnings \$2,500,000 annually compared with 1936.

Detroit City Gas Company has asked the SEC to approve \$5,000,000 bank loans, part of which would be used to meet existing loans.

**B**ROOKLYN-Manhattan Transit has halved its dividend rate to 50 cents quarterly. The common stock has declined this year from 53 to 18½, recovering about 4 points, at which level it yields about 9 per cent on the new dividend basis. The company's struggle with the CIO, which now seems likely to end peaceably, has been a factor in the decline. The company in the eleven months ended May 31st earned \$3.95, but after

pending wage adjustments will probably show a further sharp decline. Net income for the month of May showed a contraction of nearly one-half from last year's figures.

Niagara Hudson merger proceedings will be submitted to stockholders of twelve subsidiaries at various dates during July. The public service commission has already approved the step, which will reduce the number of system companies to twenty-two.

### *Gains in Electric Output and Revenues Maintained*

**D**ESPITE interruptions to business activity due to recent labor troubles, electric output has continued to show fair-sized gains over last year. In the week ended June 26th the average increase in output was 11.6 per cent over last year. *The Times'* adjusted index of electric power output was 106.6 compared with 101.9 in the corresponding week of last year. The fact that the index showed a gain of only about 4.7 per cent, contrasted with the 11.6 per cent in the kilowatt hour figure, is due to the *Times'* adjustment for long-term rate of gain in the industry.

In the accompanying table of interim earnings statements for leading utility systems, thirty-three out of forty-one utility systems, representing the major part of the industry, showed gains in income available for stockholders. Most of these gains were substantial. The exceptions to the general rule were Boston Edison, Columbia Gas, Long Island Lighting, Middle West Corporation, Brooklyn Union Gas, Brooklyn-Manhattan Transit, Greyhound Corporation, and Twin City Rapid Transit. Among the electric and gas systems only four out of twenty-seven showed declines.

A number of systems report quarterly, and the next compilation, which will include second quarter returns for these companies, will be of interest as indicating whether increased costs are retarding the rate of gain in net.

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## INTERIM EARNINGS STATEMENTS

	No. of Months Included	End of Period	System Earnings per Share (a)			
			Last Period	Previous Period	Per Cent Increase	Per Cent Decrease
<i>Electric &amp; Gas</i>						
American Gas & Electric.....	Twelve	Apr. 30 (d)	\$2.31	\$1.95	18%	..
American Power & Light.....	"	May 31	0.44	D 0.21	..	..
American Water Works .....	"	Mar. 31 (c)	1.62	1.40	16	..
Boston Edison .....	"	Mar. 31 (c)	8.69	9.20	..	6%
Cities Service .....	Three	Mar. 31	0.11	0.09	22	..
Columbia Gas & Electric .....	Twelve	Mar. 31 (c)	0.40 (h)	0.54	..	26
Commonwealth Edison .....	Five	May 31	4.05	2.71	49	..
Commonwealth & Southern.....	Twelve	May 31 (d)	0.19	0.04	..	..
Consolidated Edison, N. Y.....	"	Mar. 31 (c)	2.48	1.90	30	..
Consolidated Gas of Baltimore	"	May 31	4.56	4.55	..	..
Detroit Edison .....	"	May 31	8.47	8.39	1	..
Electric Power & Light .....	"	May 31	1.03	D 0.34	..	..
Federal Light & Traction .....	"	Mar. 31 (c)	2.78	2.36	18	..
International Hydro-El. ("A")	"	Mar. 31 (c)	1.11	0.21	425	..
Long Island Lighting .....	"	Mar. 31 (c)	0.22	0.26	..	15
Middle West Corp. ....	Three	Mar. 31 (c)	0.05	0.06	..	16
National Power & Light .....	Twelve	May 31	1.13	0.88	29	..
Niagara Hudson Power .....	"	Mar. 31 (c)	0.83	0.48	73	..
North American Co. ....	"	June 30	2.00 (e)	1.52 (e)	32	..
Pacific Gas & Electric .....	"	Mar. 31	2.75	2.25	22	..
Peoples Gas Light & Coke ...	Four	Apr. 30	2.13	1.35	58	..
Public Service Corp. N. J. ....	Twelve	May 31	2.79	2.42	15	..
Southern California Edison ...	Three	Mar. 31	0.47 (f)	0.46 (f)	2	..
Stan. Gas & Elec. (Pr. Pfd.) ..	Twelve	Apr. 30	10.00	5.86	71	..
Stone & Webster .....	"	Mar. 31 (c)	0.86	0.37	133	..
United Gas Improvement .....	"	Mar. 31 (c)	1.11	1.07	4	..
United Light & Power ("A") ..	"	Apr. 30	0.46	D 0.08	..	..
<i>Gas Companies</i>						
American Light & Traction (b)	"	Apr. 30	1.86	1.43	30	..
Brooklyn Union Gas .....	"	Mar. 31 (c)	3.20	3.40	..	6
Lone Star Gas .....	"	Mar. 31 (c)	0.97	0.94	3	..
Pacific Lighting .....	"	Mar. 31	4.71	4.22	12	..
United Gas Corp. ....	"	May 31	0.28	D 0.18	..	..
<i>Telephone &amp; Telegraph</i>						
American Tel. & Tel. ....	"	Feb. 28 (d)	10.28	7.44	38	..
General Telephone .....	"	Mar. 31 (d)	1.71	1.52	12	..
Western Union Telegraph ....	"	May 31 (d)	1.63	1.58	3	..
<i>Traction, etc.</i>						
Brooklyn-Manhattan Transit ..	Eleven	May 31 (d)	3.95	4.28	..	8
Greyhound Corp. ....	Twelve	Mar. 31 (c)	1.64	1.82	..	10
Hudson & Manhattan (Pfd.) ..	Five	May 31 (d)	4.09	D 2.61	..	..
Twin City Rapid Transit .....	Three	Mar. 31	0.93	1.17	..	20
<i>Systems outside U. S.</i>						
Amer. & For. Power (Pfd.) ...	Twelve	Mar. 31 (c)	6.60	4.10	61	..
International Tel. & Tel. ....	Three	Mar. 31	0.26 (g)	0.13 (g)	100	..

D—Deficit.

(a) On common stock, unless otherwise indicated following name of company; in some cases, Federal surtax not deducted.

(b) Total sales about 72 per cent gas.

(c) Report also published for quarter ending same period.

(d) Report also published for month ending same period.

(e) As estimated by Dow-Jones, June 23rd.

(f) Parent company only.

(g) Excludes Spanish subsidiaries and Postal Tel. & Tel. Co.

(h) Estimate.

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# What Others Think

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## Is the FTC a Fact Finding or a Fault Finding Commission?

**M**OST students of utility regulation and management are probably well aware of the valuable research work being done by Dean John T. Madden of the New York University School of Commerce in collaboration with Dr. Herbert D. Dorau, a professorial colleague at the same institution. The research was done originally for the purpose of obtaining and organizing information for possible future use by the Edison Electric Institute. By permission of the institute, Dean Madden and Dr. Dorau have selected and are publishing some of this material for those interested in public utility economics, especially those matters touched by the long investigation of the power industry by the Federal Trade Commission, which terminated only two years ago.

These volumes, Dr. Madden admits, will never be "best sellers." They are not popular treatises but at least to students interested in fairness and accuracy, he hopes they may fully explain matters ignored, suppressed, or patently distorted by the Federal Trade Commission in its reports on the findings of its investigation.

The recent annual national convention of the Edison Electric Institute at Chicago was fortunate in having Dr. Madden in person give a "preview" in digest form of some of the ground covered in the forthcoming volumes. He prefaced his remarks by reminding his listeners that "facts" stated alone without explanation often give rise to seriously false impressions. He gave an amusing example of the sea captain who was a stickler for "facts" who made the following entry in the log book: "The mate was drunk today!" When the mate protested

that the entry was unnecessary and might cause the owners to discharge him, the captain replied, "It's true, isn't it? It's a fact and it's got to stand the way I entered it." Whereupon the mate on his own watch at the wheel made another entry in the log: "The captain was sober today." Needless to say, he gave the captain his own answer when the latter protested.

**I**T is such studied false color played upon what may be strictly truthful statements of facts that Dean Madden deplored in some of the analysis of the electrical industry contained in the Federal Trade Commission's investigation reports. Specifically, he charged that the commission had distorted property valuation analysis of many utility holdings. He stated:

During the course of the 8-year investigation, the Federal Trade Commission issued many press releases in which the "write-ups" on the books of the companies were featured. To tell the investor, however, that there has been a "write-up" in the property of the company of which he holds a security without at the same time showing him what the effect and consequence of the "write-up" were, is at best only a half truth and a half truth is often worse than an untruth.

The whole of the Federal Trade Commission investigation affords no basis for the implication that because a transaction was a "write-up" it was bad or that it had any undesirable social consequences simply because it was a "write-up."

As it stands, the total of alleged "write-up" in the summary table of the Federal Trade Commission is meaningless. It adds amounts arising from indefensible incidents to amounts reflecting the results of ordinary well-disciplined business conduct having no undesirable social or business consequences. It fails to include all the increase in value of assets. What is worse, the total is in-

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flated by duplications. The "write-ups" were not computed as on the same date. One wonders why, with the time and money available, the commission did not avoid such a statistical sin.

"Write-downs" are totally ignored. Did you ever try to make up a table and be required to include in it some negative amounts? It is a nuisance to have to do so, it is confusing to the reader and a nuisance to the printer to have to put in foot notes. So the simple way out is to forget the negative amounts entirely.

Is it not imperative, simply as a matter of common candor and intellectual honesty, that the Federal Trade Commission announce to all the world, with the same measure of publicity as it gave to its press releases on the subject of "write-ups," that its summary table which purported to reveal about one and one-half billion dollars of "write-up" is incorrect and misleading?

Discussing the broader aspects of the Federal Trade Commission's recent investigation, Dean Madden said:

The impartial investigator does not expect to find flawless conditions. He is ready to accept the fact that there is an inevitable mixture of evil with the good in all things. But he endeavors to see things and events in their true proportion and perspective. The good as well as the evil must be weighed and evaluated. It is possible to magnify one or several conspicuous evil incidents and poison the public mind just as effectively as one case of typhoid may infect an entire community.

Thus it happens that investigations need to be investigated. Too many reports and investigations in modern times begin with a big wash and end with a little hangout. When investigations are undertaken for the purpose of political action in the economic realm, they should be searching, exhaustive, and above all honest.

DEAN Madden reminded his listeners that the Senate did not authorize the FTC to make any inquiry into the rates to consumers or the reasonableness thereof. It was required to report the growth of capital assets and capital liabilities but it was limited to the books of account. This was an inadequate, incomplete, and practically useless method of arriving at results because it could not answer any question upon the reasonableness of rates charged to consumers or generally the question as to the adequacy of value supporting the securities issued.

Dean Madden also discussed the losses to investors in utility securities since 1929 and showed how receiverships involved less than 2 per cent of the capitalization of operating companies and that, even under receivership, bond interest was, in many cases, continued as usual. This compares with a figure of 21.7 per cent for railroads.

Bernard F. Weadock, managing director of the Edison Electric Institute, was another sharp critic of the Federal Trade Commission at the recent convention of the institute at Chicago. Mr. Weadock, however, dwelt more upon the arbitrary and tyrannical tendencies of independent Federal regulatory commissions in general, noting the dozen agencies referred to by the President's Committee on Administrative Management as forming a fourth or "headless" branch of the Federal government. He agreed, to some extent, with the President's committee that these powerful administration commissions might well be divided into two sections—one for administrative purposes, the other a judicial body independent of the President or other departments.

There is real cause for concern at the trend of Federal government toward regulatory commissions, according to Mr. Weadock. Administrative agencies often are composed of strongly biased persons, whose prejudices and zeal to extend their powers and advance their theories threaten constitutional government. He said:

They assert the right to exercise arbitrary judgment upon the constitutional rights of those subject to their jurisdiction. In many instances they are the drafters of their own laws. They lobby them through Congress. They fortify themselves with omnibus clauses which are framed to confer almost absolute powers upon their respective commissions or bodies. They inevitably seek the right to control by "rule and regulation" the social, economic, and industrial life of the people.

RULES and regulations, orders, and pronouncements of these commissioners do not take the form of a uniform law, publicized as such, Mr. Weadock stated, but in many instances may



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The Seattle Daily News

### THE PRESIDENT'S IDEA OF A FOREST

be found buried in the archives of the commission and remain unknown to the general public. It is questionable whether such authority would ever be delegated to these commissions, in Mr. Weadock's opinion, if these policies and theories were known to the enacting bodies. The commissions evade judicial review, he charged, and the commissions constitute

themselves not only a court of inquiry, but also a court of final adjudication.

The institute's director emphasized the contention that individuals are subject to imprisonment and fines for disobeying the regulations of which they had no knowledge. He pointed out several illustrations of the exercise of legislative and judicial functions by administrative com-



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missions, which were condemned by the courts.

In spite of severe court condemnation of commission policies, the Federal Power Commission, Federal Communications Commission, Securities and Exchange Commission, Federal Trade Commission, and other bodies desire to inflict upon the electric industry, in one way or another, the original cost theory, the prudent investment theory, or similar arbitrary theories of evaluation inconsistent with and contrary to American judicial doctrines, according to Mr. Weadock. He emphasized a Supreme Court opinion that a commission is not the financial manager of a corporation and is not empowered to substitute the commission's judgment for that of the corporation's directors, nor can a commission ignore items charged by the utility as operating expenses unless there is abuse of discretion in that regard by the corporate officers.

The commissions were charged by the speaker with resorting to dilatory tactics to avoid judicial decisions upon the question of the validity of their acts and conduct. He referred to an order of the SEC suspending an act of Congress by a publicity release to prevent companies from bringing actions to enjoin enforcement of the law. The effect of this action by the SEC, according to Mr. Weadock, was to prevent an early adjudication of the constitutionality of the Public Utility Act of 1935, and to oust the court and jury from their constitutional functions and leave the commission free to bring a hand-picked action of its own in order to establish the validity of the act.

**C**ONTINUED disregard by administrative commissions of legal rights of defendants appearing before them have caused alarm, according to Mr. Weadock:

One is called to answer charges upon information which is in the custody of the department but not available to the defendant. Gossip, hearsay, and even statements of dead men have been introduced in some commissions as proof of the existence of an alleged fact. In making records of cases,

the presiding officer has ordered the stenographer to stop taking notes upon objections, arguments, or factual presentations by defendants.

Declaring that these administrative agencies do what is desired by the executive, Mr. Weadock asserted that their subjection to executive influence results in reposing in the executive, legislative, and judicial power never contemplated in the Constitution. He explained:

The result of this is simply that our rights, our privileges, our liberties, and our freedom are dependent upon the fluctuating political policy of the executive rather than the inalienable protection guaranteed to us by the Constitution.

Mr. Weadock recommended for adoption the remedy of Lord Chief Justice of England, Lord Hewart, for prevailing conditions threatening constitutional government. They are as follows:

1. That the worst of the offending sections be repealed.

2. Prevent similar sections from being enacted in the future. To accomplish this the state of public opinion should be informed of existing conditions and the electorate advised of the meaning and effect of statutory provisions which offer at once the occasion and the instrument of despotic power.

3. That committees of each house provide from their own ranks a voluntary and unofficial committee which would ask themselves with reference to every measure: "Does it confer, expressly or by implication, fresh powers upon the bureaucracy? If so, how does it seek to attain that end? Is the method, or is the probable result, of such a kind that fresh powers may evade either control of the legislature or the jurisdiction of the courts?"

4. That it is highly desirable and by no means impracticable that some of the leading newspapers should regard it as one of the appointed duties of some able member of the editorial staff, regularly and as a matter of course, to subject every new bill to a similar examination. If the bill contains the ingredient which it is desired to detect, to expose, and to destroy, well-timed publicity and well-directed opposition should effect their purpose.

Mr. Weadock concluded that if these suggestions were adopted, it would restore to this nation the government founded upon the policy of the Fathers.

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The "headless" fourth branch would be properly checked and bridled.

—E. S. B.

A STUDY OF THE PUBLIC UTILITY INDUSTRY.  
Address by Dean John T. Madden before  
the Fifth General Session of the Fifth An-

nual Convention of the Edison Electric  
Institute, Chicago, Ill. June 4, 1937.

THE "FOURTH BRANCH" OF THE GOVERNMENT.  
Address by Bernard F. Weadock before the  
Third General Session of the Fifth Annual  
Convention of the Edison Electric Institute,  
Chicago, Ill. June 2, 1937.

## Two Experts Speak on Public Relations

**I**NCONSISTENCY seems to have some good friends in high places these days when members of Congress "wide-eyed and unashamed" apparently exult in their own mental vacillation. Nevertheless, there are some matters that require at least a relative degree of continuous attention in this world of change. Such is the nature of good public relations according to President H. A. Batten of the Philadelphia advertising firm of N. W. Ayer & Son, Inc., in an address before a recent convention of the Association of National Advertisers. Good public relations, he claims, is not like medicine—to be taken only when painful symptoms appear. It must be continuously and assiduously cultivated. It is useless to try to improve public relations on Mondays, Wednesdays, and Fridays, and forget all about it on Sundays, Tuesdays, Thursdays, and Saturdays. Mr. Batten said on this point:

Too many manufacturers think of public relations as a temporary dose of medicine rather than as a fundamental system of business hygiene. Instead of watching their diet and exercising to keep well, they neglect their corporate health and then scream for the public relations herb doctor around the corner. Others use it as a means of giving public expression and visibility to their own personalities. . . . Still others . . . employ public relations as a species of conscience fund.

None of these measures does any real good; none of them is public relations at all. For public relations are a long-term thing and a constructive thing. It is a builder, not merely a mender. . . .

Ideally the best public relations campaign would be to have the head of the business in person tell the story of that business to each individual member of the public.

That, in effect, is what American industry

ought to do. American industry has lost touch with a tremendously powerful and important friend—and it is years behind with its correspondence. . . .

If I had something vitally important to tell the public, I should not rely wholly on the editorial columns of the newspapers and magazines to tell it. I should turn to the advertising columns, and there I should tell my story—when I wanted it, where I wanted it, the way I wanted it, without a line of it left out, or a word changed.

**M**R. Batten further believes that the first step, indeed the necessary foundation of all good public relations, is to be sure one has a business worthy of a message and to tell the story about it truthfully. If the true story does not flatter, then there must be housecleaning so that it will sound better. Merely doctoring up the publicity without correcting the undesirable facts that distort it is futile in Mr. Batten's opinion. He concluded:

But all public relations must start with the business itself. If you are not going to tell the truth in life and in business you might as well give up now, because you will inevitably be found out and discredited. But if you are going to tell the truth—if you are going to paint a faithful portrait of your business—then it is essential that the business itself be worthy of the painting. . . .

Often the most potent and far-reaching truths have their sources in the most abstract ideas. An abstract idea that all men are created equal led to the founding of the United States. Perhaps we are ready now for another long step forward by putting into practice another abstract idea—an idea which has been rather generally neglected for the past 1900 years. That idea can be expressed in eleven simple words: "Do unto others as you would have them do unto you," and that, I think, is the best public relations program of all.

Another expert in the line of public utility relations who recently spoke on

## WHAT OTHERS THINK



*The Dallas Morning News*

### HE USUALLY GETS THE BILL

this subject is Blackwell Newhall, assistant to the president of the Philadelphia Gas Works Company, speaking before the Pennsylvania Gas Association convention. Mr. Newhall believes that public relations is like the weather. It exists—good, bad, or indifferent. It is always there. For this reason he does not approve of specializing and depart-

mentalizing public relations as an isolated division of company work to be "handled" exclusively by experts. Public relations is part of the responsibility for all departments, branches, and individual employees. Each must give his or her attention to better public relations with respect to his or her own job, no matter how limited that may be.

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THIS thought does not mean that Mr. Newhall minimizes the importance of public relations. On the contrary, he points with approval to the trend in modern business training; such as the public relations courses being installed in the universities. He means, however, that a company's public relations is a year round everyday job that concerns all and can no more be relegated to a special department than a company's honesty or respectability can be bundled up in a single division. He agrees somewhat with Mr. Batten's idea that a simple message is most effective in public relations. He states on this point:

The management which forgets this activity until something is wanted from the public, or it wants to put into practice a new policy and then realizes that it is out of touch with the public and must feverishly get into action, will surely lose out in the end. We are faced with the job of telling our story and selling ourselves to the public. Let us tell it in a friendly fashion, in language that we know our customers will understand. Proper handling of a complaint in the beginning is worth 10 efforts to sell the company to a customer once annoyed.

People want to be friendly, but you can't slap them in the face and expect them to stay friendly. It is management's customer relations job to prevent "slaps in the face" to customers.

Mr. Newhall sums up the points covered in describing management's responsibility for public relations as follows:

(1) Fix a public relations policy (i.e., decide what the general policy is to be).

2. Determine the public relations factors in your company (i.e., employee contacts, consumer contacts, press and radio contacts, etc.).

(3) Coördinate public relations factors (i.e., analyze each complaint with respect to all company departments concerned).

(4) Keep up to date on public reactions (i.e., records of complaints, consumer surveys, etc.).

(5) Plan for the future (i.e., consider consumer demands in the light of anticipated trends).

MR. Newhall makes an interesting classification of consumers in the course of analyzing their reactions to utility operations. For working purposes of public relations he finds four general groups of patrons: (1) Those who must be guided and helped in their business transactions; (2) those who are easily satisfied, accept errors without undue grumbling, and are well disposed enough to coöperate willingly; (3) those who are somewhat combative, doubtful of explanation, and belligerent toward suggestion (it is difficult to coöperate with this group); (4) those always dissatisfied and very hard to handle (it is just about impossible to coöperate with this group).

It is easy, says Mr. Newhall, to approach group No. 2, but it is a test of determination in the matter of public relations to work toward getting results from No. 4.

Apparently keeping customers in the line of good public relations is something like the scriptural job of retrieving lost sheep; one must leave the ninety and nine who need no special care to rescue the lone strayer out of a hundredfold.

—M. M.

PUBLIC RELATIONS IN BUSINESS. Address by H. A. Batten, President, N. W. Ayer & Son, Inc., Philadelphia, Pa., before the Association of National Advertisers, Hot Springs, Va., April 28, 1937.

MANAGEMENT'S CUSTOMER RELATIONS JOB. Paper presented by Blackwell Newhall, Assistant to the president, The Philadelphia Gas Works Company, before Pennsylvania Gas Association Convention, Sky Top, Pa., May 6, 1937.

“THIS column has clearly stated from the beginning of this discussion that it regards the charges of power facilities to ‘navigation’ as bunk. After a week's study I am convinced that there is more bunk than that in TVA figures.”

—HUGH S. JOHNSON,  
Former NRA Administrator.

## WHAT OTHERS THINK

### Edison—Father of the Electric Power Industry

MR. J. G. Crowther's book, "Famous American Men of Science," presents interesting biographical sketches of Benjamin Franklin, Joseph Henry, Joseph Willard Gibbs, and Thomas Alva Edison. Three of the four were important figures in developing the theory and application of electricity. Ben Franklin is remembered for his famous kite experiment; Henry was a student of electromagnetism. Edison, whose only achievement in the realm of theory was his discovery that hot filaments radiate electrons, nevertheless bridged the gap between the theories of his predecessors and our vast present-day electrical mechanism.

Mr. Crowther does not quite agree with his namesake, Samuel Crowther, who in presenting Henry Ford's concept of Edison stated that "he is both a scientist and an engineer, and he established the modern spirit in both science and engineering." He would not give Edison entire credit for the concept of modern industrial science, which he thinks had its beginnings in the steam age and was expressed in the writings of Francis Bacon and the aims of the founders of the Royal Society of London. But Edison started without the handicap of a traditional view of science, and hence was able to "express directly in his own career what society was expecting of science."

The many contradictory points in Edison's personality make his life record a fascinating story. With little formal education, he was widely read in his own

field. Rough and uncouth in his personal habits, he was a great judge of character. Despite personal modesty, he did not always contradict exaggerated stories of his achievements. He could work twenty hours a day for months, but when not pressed slept nine hours. While he did not quarrel with the methods used by capitalists, he made no attempt to exploit his own inventions, pouring all the money which came his way into fresh experiments.

As Mr. Crowther sums up "Edison was not a solemn tyrant . . . he created a new sort of sublimated gangsterism. He was the boss of a gang engaged in blackmailing nature. He oppressed the facts of science until he squeezed inventions out of them. He formed his gang out of men with compensating qualities. He imagined and thought out the experimental attacks. He was not particularly skilful with tools. He was primarily an imaginative thinker. He worked with sketches, and preferred giving instructions by sketch rather than verbally . . . His assistants were often required to try things without being told why. This was a typical gangster-like procedure. Edison could secure the intensest blind loyalty. His gang had confidence in his gifts and leadership. He muscled into invention, in Rosanoff's phrase, like a 'happy hooligan.'"

—O. E.

FAMOUS AMERICAN MEN OF SCIENCE. By J. G. Crowther. 414 pp. W. W. Norton & Co. \$3.50.

## Notes on Recent Publications

TORT LIABILITY OF SUPPLIERS OF ELECTRICITY. By Lester W. Feezer. 22 *Washington University Law Quarterly* 357. April, 1937.

Public utility executives as well as utility attorneys would be well advised to obtain a copy of this article and keep it as a handy reference—just in case. The author, who is professor of law at the University of South Dakota, has made a fairly comprehensive analysis of damage suits against gas

and electric companies arising out of accidents both to consumers and nonconsumers, resulting from contact with utility plant facilities. The article is also digested in 3 *Current Legal Thought* 630. April, 1937.

THE JOHNSON ACT—DEFINING A "PLAIN, SPEEDY, AND EFFICIENT" REMEDY IN THE STATE COURTS. 50 *Harvard L. Rev.* 813. March, 1937.

# The March of Events

## Lea Bill Approved by House

**T**HE approval, July 1st, of the Lea regulatory bill by the U. S. House of Representatives made Federal regulation of the gas industry almost a reality.

The bill, giving broad jurisdiction over interstate sale and transportation of natural gas to the Federal Power Commission, was passed by voice vote without dissent and was sent at once to the Senate. Representative Robert Crosser (D., O.) pointed out in a floor speech that, while the measure gave the FPC authority to set rates only on interstate transportation and sale, local distribution prices probably would go down at the same time. According to Representative Clarence F. Lea (D., Calif.), chairman of the House Interstate Commerce Committee and sponsor of the bill, it would supplement rather than supersede the regulatory powers of state public utility commissions.

The bill provides for regulation of the exportation and importation of natural gas and authorizes the FPC to ascertain the cost of property used in rendering service; to direct extension or improvement of transportation facilities, and require the interconnection of facilities; to require a certificate of convenience or necessity for an extension into the territory of another natural gas company (but not into that served with manufactured gas); to regulate the abandonment of service; to prescribe a uniform system of accounts; to determine proper depreciation rates; to fix rates and charges for natural gas sold for resale for ultimate public consumption; to investigate compacts between the states; to compile information relative to the effect and operation of any compacts between the states; and to make investigations and report to Congress respecting the natural gas industry.

## Landis Re-elected SEC Chairman

**J**AMES M. Landis, chairman of the Securities and Exchange Commission, was re-elected July 1st to that post for an indefinite period, thus probably deferring the selection of his successor at least until September 1st, when he will leave the commission to become dean of the Harvard Law School. There has been no indication from the White House yet concerning whom the President will select to succeed Mr. Landis on the commission.

It is expected that before Mr. Landis leaves the commission, it will have completed its opinions on at least two of the proceedings brought against members of exchanges for alleged violations of the antimanipulative sec-

tions of the Securities Exchange Act. Also it is probable that the regulations of the commission aimed at prevention of fraudulent practices in the over-the-counter markets recently submitted to interested groups for comment will be promulgated.

## Canadian Utility Wins Suit

**I**N a unanimous judgment which Premier Hepburn later said was "not entirely unexpected," the Ontario Court of Appeal dismissed the Ontario Hydro-Electric Power Commission's appeal against the judgment of Chief Justice Rose which held that the Beauharnois Light, Heat and Power Company was entitled to recover \$609,600 from the commission for power supplied. The validity of the contract between the company and the commission was upheld also.

Having promised that the commission would be made "judgment proof in the event of an adverse decision," Premier Hepburn immediately moved to give effect to the legislation passed last session which places the hydro commission beyond reach of any process of law. The Ontario government will not let the matter rest here, however. A further appeal will be taken either to the Supreme Court of Canada or to the Privy Council.

## Authority Seeks Denial of Writ

**T**HE Tennessee Valley Authority has asked the U. S. Supreme Court to deny a petition of the Georgia Power Company for a writ of certiorari on lower court TVA victories in Georgia and the Fifth Circuit Court of Appeals at New Orleans.

The power company sought the writ after the Georgia district court had refused to restrain TVA power-selling activities which the company said were unconstitutional, and after the appellate court had refused to permit the company to shift its attack against TVA to Federal courts in Tennessee.

The brief, filed by James Lawrence Fly, TVA counsel, declared "petitioner's reluctance to proceed in the court of first jurisdiction" arose "solely because of the desire for a fresh litigation of the issues of this case in a forum which it believes to be more favorable."

## PWA Bars New Requests

**N**O more applications for allotments for non-Federal projects will be accepted by the Public Works Administration, under a staff order issued July 1st by Secretary Ickes in accordance with Section 206 of the 1937



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act authorizing PWA to continue in operation until July 1, 1939.

There remain pending a sufficient number of projects in an advanced stage of preparation to be dealt with under the funds available through the Extension Act, and it is desired to save communities from incurring expenses through civic, legal, and engineering action on projects for which no allotments can be made.

Applications had been accepted for more than four years since the Public Works Administration was first established June 16, 1933. During that time non-Federal applications were filed for 25,323 projects seeking allotments totaling \$7,365,000,000, as loans and grants, for permanent useful public works having a total construction cost of \$10,146,040,000. Over a period of years thereafter, the Alcoa investment may be increased by between \$7,000,000 and \$12,000,000.

### Bonneville Bill Progresses

**T**HE House Rivers and Harbors Committee voted unanimously, June 24th, to report favorably the Mansfield bill for administration of the \$75,000,000 Bonneville hydroelectric project on the Columbia river.

The committee, prior to the final vote, eliminated a section which would have given the Federal Power Commission authority to fix uniform interest rates on all Federal projects in determining power rates on the basis of amortization of costs.

The bill was introduced by Committee Chairman Joseph J. Mansfield (D., Tex.), who said he would seek to bring it to the House floor for quick action. It provides that the War Department shall have supervision of locks, navigation, and power as far as the "Switchboard." Sale and distribution of power after reaching the Switchboard would be under an administrator.

Included in the bill was a section authorizing a Federal investigation of any discrimination against the Boulder project on power charges—inserted as a solution for the controversy occasioned by the desire of Southern California power users for lower power rates from Boulder dam. The section was drafted by representatives of Los Angeles Bureau of Power and Light with the cooperation of the

Metropolitan Water District of Southern California. The Southern California Edison Co., also user of Boulder dam power, was represented as being in sympathy with the proposal.

### Power Rates Show Decline

**I**N a report issued recently, the Federal Power Commission announced that residents of 126 cities had lower electric rates at the start of 1936 than they had a year before. Reductions were made by 95 utilities, 61.3 per cent of the number studied.

Cleveland had the lowest rate in the country for customers using no more than 25 kilowatt hours a month. Those buying from its municipal plant paid 88 cents for that much current; those buying from the competing private utility, Cleveland Electric Illuminating Co., paid \$1, the third lowest rate in the country.

In Washington, D. C., consumers of 25 kilowatt hours paid 98 cents—second lowest rate in the country, and the lowest rate charged by a private company.

For users of 100 or 250 kilowatt hours, Tacoma, Wash., with a public plant, had the lowest rate. Cleveland dropped to fifth in the 100-kilowatt-hour category and to 25th in the 250-kilowatt-hour bracket.

On the basis of the charge for 25 kilowatt hours, in cities of 100,000 or more population, Columbus municipal rates were tied for third lowest with Cleveland private company rates. Buffalo, Cincinnati, and Tacoma were seventh. Akron was eleventh.

Miami had the highest rate of any city in this category. It is served by Florida Power & Light, an Electric Bond & Share unit. Yonkers, N. Y., served by the Yonkers Electric Light & Power Co., has the highest rate for 100 kilowatt hours' consumption. Queens, served by the Queens Borough Gas & Electric Co., had the top rate for 250 kilowatt hours.

The Federal Power Commission found that "material progress is being made in the direction of simpler and more uniform rate schedules," and that "rate plans which offer lower rates to customers who increase their consumption over that of a corresponding month of a previous year appear to be gaining a wider application."

## Arkansas

### Arkansas Utility to Buy TVA Power

**T**HE Tennessee Valley Authority, June 25th, concluded negotiations for a contract with the Arkansas Power and Light Company, by which it will send its electricity west of the Mississippi for the first time. The contract, the second negotiated by the TVA with a

private power company, will not be signed until the Federal Power Commission and the Arkansas Public Utilities Commission have approved it.

It will be for five years and will be renewed automatically from year to year unless terminated by either party on two and one-half years' notice. It provides for gradually increasing sales and payments. The company will pay about \$750,000 annually af-

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ter the first five years, it has been estimated.

Delivery of the power will be made by TVA at a substation near Memphis over a 150,000-volt line now being constructed from Pickwick Landing dam to Memphis. The line will carry sufficient power to serve both the city of Memphis, which has also contracted for TVA power, and the Arkansas company.

"With the beginning of this new source of supply," said the TVA announcement, "the company has indicated its intention of

reducing rates in the state of Arkansas."

Representative John E. Rankin advocated the inclusion of a written agreement by the power company for resale of the power at "yardstick" rates; a spokesman for TVA, however, stated that the authority had no power under the act to dictate resale rates outside of the Tennessee valley area, and that the matter of rates would rest entirely with the Federal and state commission having such regulatory authority.

## California

### Project Approved by House

**T**HE U. S. House of Representatives, without debate, approved July 1st a complete reauthorization of California's \$170,000,000 Central Valley water project.

Language perfecting previous authorizations was included in the omnibus rivers and harbors bill, which the House passed and sent to the Senate. The Central Valley section of the measure gives the Reclamation Bureau authority to institute condemnation proceedings in acquiring rights of way and water rights, a power it does not now have in connection with that project.

It also transfers from the War Department to the Interior Department jurisdiction over expenditure of a \$12,000,000 Federal contribution toward the cost of Kennett dam.

### Lower Gas Rates Announced

**R**ATE reductions, bringing an annual savings of \$225,000 to its customers, were placed in effect July 1st by the Southern Counties Gas Company. According to the president of the California Railroad Commission, the reduction resulted from an informal investigation of the company by commission officials followed by negotiations for an adjustment in charges. It was further stated that the successful termination of the investigation completed for the time being the commission's informal surveys of gas and electric utilities in Southern California.

Elimination was made of the "3-use" schedule under which customers using gas for house and water heating and for cooking and whose bills were between \$2 and \$25 a month were given preferential rates. The new rates make these lower charges available to all domestic

customers whose bills are over \$2 a month.

### Transit Plan Is Favored

**S**AN Francisco rapid transit advanced recently when the board of supervisors, after thirteen months of consideration, voted favorably July 22nd toward submitting the public utilities commission's subway proposal to the voters at the November 2nd election.

By an 8 to 3 vote, the supervisors passed a resolution requesting the city attorney to prepare legislation for submission of the \$49,250,000 proposal in the form of a bond proposition.

As opposed to various plans for relieving the transit problem suggested by dissenting supervisors—including the provision of 1,000 busses to be operated by two men each and the consolidation of the two street car systems—the approved plan calls for construction of three subway units; a separated grade surface extension of an existing subway; and some 14 feeder bus lines in all parts of the city.

### Votes Light Rate Cut

**T**wo ordinances revising the rates charged by the bureau of power and light were adopted unanimously by the Los Angeles city council recently.

One ordinance fixes rates for service within the city limits and is said to reduce in an aggregate of \$1,250,000 the present bureau income. The other ordinance covers territory served outside the city limits acquired when the bureau took over the lines of the Los Angeles Gas and Electric Corporation. These rates are said to be slightly higher than city rates. When the ordinances were first presented, immediate adoption was deferred. Later, they were passed without discussion.

## Colorado

### Farming Declared Public Utility

**S**TARTING July 1st, every farmer and dealer in farm produce in the state, whether he  
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runs a 2-acre spinach garden or a 5,000-acre wheat farm and whether he peddles vegetables from door to door or carries on a big wholesale produce business, will have become a pub-

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lic utility within the meaning of a Colorado law, under the provisions of the newly-enacted House Bill 96.

As public utilities, the farmers and dealers will be subject to regulation as to charges and other business details by the state public utilities commission.

On its face, the new law purports to be a statute to place produce commission merchants, dealers, brokers, and agents under the supervision of the state director of markets. Included in the law, however, is the statement that "Farm produce is hereby declared

a commodity affected with a public interest requiring regulation for the protection of both the producer and consumer."

That provision brings farming generally within the scope of the 1913 utilities act which says, in part, "Every corporation or person now or hereafter declared by law to be affected with a public interest and each thereof is hereby declared to be a public utility and to be subject to the jurisdiction, control, and regulation of the (utilities) commission."

It is not expected that the state commission will undertake any regulation of agriculture.

## Delaware

### Seeks Injunction on Plant

**T**HE Pennsylvania Company for Insurances on Lives and Granting Annuities has requested Federal Judge John P. Nields to restrain the Seaford Power and Light Company from exercising its franchise to construct and operate a power plant in Seaford.

The Seaford town council had refused to renew the franchise of the Eastern Shore Public Service Company (acquired by the insurance company) and granted the right to distribute electric power to the Seaford company with the stipulation that the town could buy the company's property after five years.

The case has long been in court litigation.

## Florida

### Report Favors Municipal Bus Operation

**A** REPORT has been submitted to the Miami city commission, recommending municipal ownership and operation of a bus transportation system which, it was stated, should provide a net annual income of more than \$500,000, if recommended additional facilities were provided.

According to the report, it had been suggested that street cars be discontinued and the equipment sold, with busses to operate over the old street car routes with a revision of present bus routes on 5-minute schedule.

Large savings, it was said, could be effected through municipal ownership, the revenue to go to the general fund, thereby reducing taxes, because license tags would be only \$2.25 each, gasoline and tires could be procured at lower prices under annual contracts, there would be no income or personal property taxes, legal expenses would be reduced, there would be no advertising expense, civil service rules and supervision would save operating expense, advertising income could be greatly increased, and additional revenue could be obtained from school bus contracts and special engagements.

The commission took the proposal and report under consideration.

## Georgia

### Commission Cuts Rural Power Rate

**R**EDUCTION in the standard rates for the Georgia Power Company to charge rural electric associations has been announced by the state public service commission.

The new schedule, said to have been arranged in conferences among the company, the commission, and a rate expert of the REA, follows:

First 150 kilowatt hours of demand a month,

1.66 cents per kilowatt hour; next 20,000 kilowatt hours per month, 1.11 cents per kilowatt hour; next 30,000, 0.833 cents. All consumption above this amount, 0.666 per kilowatt hour. Charges are made against the association for the electricity it purchases for distribution to members; the association fixes the charges against the members.

The same rates, it was announced, would be available to any city purchasing electricity for redistribution under contracts having higher rates.

## Louisiana

### Consultant for Utilities Probe Named

THE Louisiana Public Service Commission recently selected Lieutenant-Governor Earl K. Long as consultant for the commission in its electric, gas, and telephone rate investigation cases.

The statement concerning the selection of Mr. Long as utilities consultant follows:

"In view of the sweeping public utility rate investigation ordered by the commission involving the charges and practices of every gas and electric company in the state, as well as the recent effort to obtain further reductions from the Southern Bell Telephone & Telegraph Company affecting every nook and corner of Louisiana and in the realization of the vast amount of work which this entails,

it was agreed that some steps should be taken to in some measure make up as far as humanly possible for the loss of our lamented leader and co-worker, our predecessor and chairman of the commission, Senator Huey P. Long.

"It was agreed that the exigencies of the situation called for the employment of someone whose policies and views on the subject of low public utility rates for the public coincided with that of our late Senator. It was recalled that on this question, his brother, the present Lieutenant-Governor Earl K. Long, was in full accord with the views of Senator Huey P. Long. Under the circumstances, it was decided to request and urge upon Lieutenant-Governor Earl K. Long, whose attitude on the matter we do not yet know, to accept appointment of consultant to this commission on these matters."

## Maine

### Utility Acquires New Power Sites

IN a letter to stockholders recently, President Walter S. Wyman of the Central Maine Power Company announced the acquisition, from International Paper Company, of

two new power dam sites—Ram Island site on the Androscoggin river and a dam at Caratunk Falls, between Solon and Embden on the Kennebec river. The development of these sites will result in an increase of upwards of 50,000,000 kilowatt hours in the company's power production.

## Minnesota

### Court Orders Stay

AN order was issued in Ramsey district court recently stating previously ordered telephone rate reductions in the St. Paul area pending outcome of a possible appeal by the Tri-State Telephone & Telegraph Co.

An additional bond for the company of \$250,000, to insure rebates to customers in case the reductions go into effect, was also fixed. The addition made the company's total bond \$750,000.

The rate reductions, averaging about 25 per cent and amounting to an annual estimated total saving to customers of about \$500,000, were ordered by the railroad and warehouse commission and upheld by Judge Loevinger of the Ramsey district court May 21st.

### Proposed Gas Rate Increase Investigated

A CHECK of books and records of the Minneapolis Gas Light Co., to determine whether the new 5-cent increase per 1,000 cubic feet of gas is justified, has been started by Minneapolis council's utility engineer.

At the same time, a company statement, signed by its secretary, announced that the increase was necessary to take care of greater labor costs growing out of a wage advance granted in a contract the company had signed with Gas Workers' Union 20490, an affiliate of the American Federation of Labor. According to the statement, "the increase in gas rates covers only the amount given in wage increases and concessions to the employees."

## Missouri

### Laclede Gas Tax Suit Postponed

SUIT of the Laclede Gas Light Company, attacking the constitutionality and seeking  
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invalidation of a city ordinance imposing 5 per cent tax on the company's gross receipts from the distribution of gas, was continued to September recently when called for trial.

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Counsel for the company stated Laclede officials had been conferring with the mayor and city officials in an attempt to settle the litigation amicably out of court. Associate city

counselor, however, said he did not see how a suit attacking a city ordinance could be settled out of court. In his opinion, only a court decree could decide the matter.

## Nebraska

### Acquisition of Power Plant Enjoined

FEDERAL Judge Munger recently entered an order temporarily enjoining a condemnation court of three persons, together with the city officials of Auburn, from proceeding with the condemnation of the Western Public Service Company plant located in Auburn. The judge thus upheld the plaintiff's allegations that the language on the ballot, which was submitted to the citizens of Auburn last fall, was ambiguous and did not conform with the resolution of the city council placing the question on the ballot.

Stated the judge in a memorandum opinion: "The clause 'and/or transmission lines and

real and personal property therewith together with' is an interpolation not found either in the resolution or notice. The use of the expression 'and/or' has often been condemned by the courts.

"The ballot in question asked a yes or no vote on the proposal that the city of Auburn should acquire or appropriate (1) the electric light and power distribution system, or (2) transmission line and real and personal property needed or useful in connection therewith, or (3) both the electric light and power distribution system and transmission lines and real and personal property."

Under the ballot submitted it is impossible to ascertain the voters' will as to what property was to be acquired, stated Judge Munger.

## New York

### Tax Prevents Rate Cut

CITING increased taxes as one reason why it probably could not order a reduction in the rates of the Brooklyn Union Gas Company, the state public service commission has dropped its rate proceedings against the company, but did order refunds to general customers totaling approximately \$925,000.

These refunds represent the amount which would have been saved to consumers by a 4½ per cent reduction for one year. In 1934 the commission ordered a 5 per cent reduction to last for one year, but it did not become effective because of litigation. Some money was impounded in the event the ruling was upheld, and this is to be distributed to consumers under the present order.

The commission approved a memorandum in which it was suggested that the hearing be closed on such a basis.

### Commission to Collect Utility Tax

THE state tax commission, it was announced recently, has decided to administer collection of the 2 per cent utility tax on a statewide basis, although the law permitted New York city to collect the tax and pay it to the state.

The decision was reached, the state tax commission stated, after conferences at which representatives of utilities who will pay an estimated \$24,000,000 annually explained it would be easier for them to prepare returns for all their business within the state. If New York city were to collect the tax, the utilities would have been required to make separate returns for the city and the rest of the state.

This decision, however, does not affect administration of the one per cent tax which municipalities may impose on utilities.

## Ohio

### Permits Revival of Handset Rule

UPON application of the Ohio Bell Telephone Co., the state utilities commission has authorized the company to revive its rules governing the imposition of the 15-cent-per-month extra charge for handset instruments until a total of \$2.70 has been paid.

Under the revised rule customers would be allowed credit for interrupted service for

a period of two years, and for periods of more than two years where previous use can be determined from the company's records.

### Setback Spurs City Gas Fight

FOLLOWING denial, by Federal Judge Samuel H. West, of a request by the East Ohio Gas Co. for an immediate raising of gas rates from the level imposed by the Cleveland city

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council, plans were made to continue the city's fight for a lower rate before the Ohio Public Utilities Commission.

The Federal action was instituted sometime ago by the company, which alleged that the city council continued to impose a gas rate that was confiscatory. The company asked that the present average rate of 58 cents for 1,000 feet of gas be set aside and that the com-

pany be permitted to collect a 68-cent average rate, under bond.

Judge West held that Federal court was without jurisdiction in the case, and the decision means that Clevelanders will continue to pay the present rate until the utilities commission gives a new decision. The East Ohio company expected to appeal from Judge West's decision.

## Oklahoma

### Hope Held for Dam Project

SENATOR Elmer Thomas (D., Okla.) placed an amendment in the Federal relief bill recently that was designed to smooth the way for the construction of the Grand River dam at Pensacola as a PWA project. The amendment inserted a provision to permit participation of the government on a project where

states have enacted legislation to issue bonds to help to build such projects.

The Grand River project, estimated to cost about \$9,000,000 is proposed as a combination flood control and power development for the northeastern section of the state. "If Army Engineers have the plans ready, it is possible construction can be started with money out of the new appropriation," the Senator stated.

## Oregon

### Utility Reduces Rates

RATE reductions aggregating \$103,500 and affecting approximately 21,810 customers have been announced by the California-Oregon Power Company.

The bulk of the reductions involved domestic and commercial lighting schedules. The annual reduction to the 12,380 residential users averages slightly in excess of \$6 per customer, while 3,030 commercial lighting users will profit to the extent of substantially \$8.60 annually.

Total reductions to the company users, including previous tariffs, secured by the utility commissioner since October 1, 1936, exceed \$146,000 a year.

### Appointed in Charge of Bonneville

MAJOR Theron D. Weaver, U. S. Army Engineer Corps, has been ordered from Los Angeles to Bonneville to take charge of dam construction work. Major Weaver, who has been assistant in charge of WPA activities at Los Angeles for the past year, will succeed Lieutenant-Colonel Charles F. Williams, U. S. district engineer, second Portland district, who was transferred recently to Fort Leavenworth.

Weaver will be stationed at Bonneville, where the dam section of the Engineer Corps is now located.

## Pennsylvania

### Taxicab Probe Launched

RATE experts of the public utility commission have been engaged in an investigation of the earnings, valuation, and service of Pittsburgh's Parmalee taxicab monopoly, operating under a one-third cut in rates since last February.

The investigation, in effect in Harrisburg and Lancaster as well as Pittsburgh, was ordered as a preliminary to a possible formal complaint to reduce charges still further. However, as stated by Chairman Driscoll, the commission would await the reports of its experts before scheduling conferences with company officials or public hearings in a formal complaint.

Prior to the first reduction in February, which resulted from informal conferences between the taxi president and the city council, the two Parmalee cab units in Pittsburgh received a profit of roughly 20 per cent last year. Utility concerns are permitted to earn only 6 per cent on their valuation. Results of the "experimental cut" have not been divulged in dollars and cents, although Mr. Houston, the taxi president, frequently has said that business has materially increased under the lower rates.

The investigation was launched to find out if the rates are "fair and reasonable and do not produce an excessive rate of return." Inquiries will also be made from the standpoint of safety and comfort for the passengers, the



## THE MARCH OF EVENTS

mechanical condition of the taxicabs, their cleanliness, and whether sufficient cabs are being operated to serve the communities, it was announced.

### New Commission Power Gets Test

**T**HE first test of the state public utility commission's new power to impose temporary reduced rates will be experienced by a small rural electric company with 1,000 or so customers—the Solar Electric Co., a unit of the Associated Gas & Electric chain, serving customers in and around Brookville.

The Solar Co. case was given precedent over the much larger Duquesne Light Co., serving the Pittsburgh district, for the temporary rates' test largely because a rate case which has strung out over the last nine years provided the public utility commission with a voluminous backlog of evidence as a foundation.

Necessary technical preliminaries have been completed and Commissioner Thomas C. Buchanan has announced he would recommend temporary rates "at the earliest possible moment." The new rates, it is understood, will be materially lower than the utility's average charge of 5.8 cents per kilowatt hour last year.

That imposition of temporary rates will result in a formal court challenge on the commission's new power, granted in the 1937 utility regulatory act, is considered a certainty. Groundwork was laid when counsel for the utility company contended the provision was unconstitutional at the beginning of the preliminaries late in June.

### State Orders Refund of Utility Deposits

**R**ATEPAYERS throughout Pennsylvania will have several million dollars in deposit fees returned to them under a regulation issued by the public utility commission late in June. The order, which the commission declared was made possible by the passage of the new state public utility law, affects the patrons of 457 utility companies furnishing gas, electricity, water, steam heat, and telephone service.

It declares that "all deposits in the posses-

sion of the utility on June 1st shall be returned to the depositor when he has paid or shall have paid undisputed bills over a period of twelve consecutive months beginning at anytime within the year immediately preceding June 1st." Deposits were ordered refunded with interest at the rate prescribed in each company's tariff schedule, averaging about 4 per cent.

An additional provision of the regulation is that every utility other than common carriers may require deposits from patrons who apply for service after June 1st, but the deposit shall not exceed the customer's estimated average monthly bill. The deposit must be returned with interest at the end of twelve months if the customer has paid undisputed bills. The order also forbids the levying of advance payments by telephone, water, steam heat, and sewerage companies, except when allowed by the commission.

### Rural Electric Bill Approved

**T**HE rural electrification bill, which is expected under the new public utility commission's interpretation, to solve the inequalities in rate structures for electric light and power on the farms, became a law when it was signed by Governor Earle, June 21st. The bill permits formation of cooperative companies to finance construction of power lines through thinly populated rural districts.

The electrification law escaped near "emasculatation" in the senate when in it was discovered a clause prohibiting the coöperatives from entering districts served by commercial companies. This, it was contended, would have permitted power companies to run "spite lines" serving only a few customers into virtually all rural districts and block the work of the coöperatives.

The new law permits the coöperatives to take full advantage of the Rural Electrification Administration provisions. Under its sections, farmer groups can enter into competition with the utility companies and either force rates down to a reasonable figure or construct their own servicing lines. The coöperatives may finance their endeavors with the aid of Federal funds, and it has been estimated that if advantage is taken of the new law, at least \$2,000,000 will be provided by Washington to aid in rural electrification in Pennsylvania during the next year.

## South Carolina

### Buzzard's Roost Path Cleared

**A**TTOREYS for the Duke Power Company and Greenwood county settled disputed points in the appeal record of the litigation over the county's \$2,852,000 Buzzard's Roost hydroelectric project at a hearing recently before U. S. District Judge J. Lyles Glenn.

The hearing paved the way, the lawyers said, for completion of the record before August 3rd, when the Fourth Circuit Court of Appeals is scheduled to hear an appeal by the power company from Judge Glenn's recent decision upholding the county's right to construct the project with the aid of Public Works Administration funds.

## PUBLIC UTILITIES FORTNIGHTLY

### Texas

#### Rate Cut Offered

**A** PLAN for the Dallas Power & Light Company to pay the city general fund \$100,000 annually in a special tax and to reduce rates for patrons in the same amount each year has been submitted to the city council for consideration, it was recently announced.

The council's utility committee had sought a 4 per cent gross receipts tax, together with other changes in the company's method of doing business, but these requests were turned down and a new proposal made as a substitute by the company. Although details of the plan had not been made public at the time of this

writing, it was expected that since residential customers already have a favorable rate basis, the major portion of the \$100,000 reduction would go to commercial users as an aid to industrial development in Dallas.

One utility—the Southwestern Bell Telephone Company—now pays the city a 4 per cent gross receipts tax that brings in about \$145,000 a year. The other utility companies want to shy away from the gross receipts tax idea, however, and the Dallas Power & Light Company is believed to have agreed that some form of a tax for the use of streets or other privileges enjoyed by the company would be proper.

### Virginia

#### Natural Gas Firm Chartered

**T**HE Dominion Gas Corporation, newly chartered by the state corporation commission, laid plans recently for the distribution of natural gas and oil to cities and towns throughout Virginia.

Authorized in its charter to "transmit, create, generate, manufacture, refine, distribute, purchase, and furnish gas and oil," the corporation proposes to lay transmission

lines in Rockingham on the West Virginia border. It was announced that Ashland, Williamsburg, and a great many towns in the Shenandoah valley already had agreed to take the service. Permanent headquarters will be opened in Richmond, and main plants probably will be established in the vicinity of Bergdon in Rockingham county.

The charter authorized a maximum stock of \$10,000 and a minimum of \$1,000, to be divided into shares of \$1 each.

### Wisconsin

#### "Little TVA" Bill Signed

**T**HE "little TVA" bill, enabling Wisconsin to establish a public power system through the Wisconsin Development Authority, a state-financed, nonprofit corporation, was signed by Governor L. La Follette July 1st. The plan authorizes the Development Authority to promote public and cooperative ownership and operation of utilities and to carry on works of internal improvement denied the state by its constitution.

In addition, the corporation's articles authorize the WDA to engage in the power business itself, by leasing, buying, and constructing power sites, lines, and dams, and by issuing its own securities. The bill carried a starting appropriation of \$10,000 and beginning July 1st, was to have received an annual state appropriation of \$60,000.

Throughout the legislative fight on the measure opponents contended that the twelve incorporators of the Wisconsin Development Authority could project the corporation into practically every business. Administration spokesmen denied, however, that the WDA would be expanded beyond the utility field.

According to the governor, the purpose of the Wisconsin Development Authority law was threefold:

1. To provide an agency under which the 85 publicly owned electric utilities can cooperate to improve their service.
2. To continue the program of bringing electric power to Wisconsin farms.
3. To provide an agency to promote "cheap and abundant electric power."

#### Light Rate Cut Effectuated

**A**N electric rate reduction of approximately \$300,000, affecting principally 104,000 home users of electricity in central, north-eastern, and northwestern Wisconsin, has been ordered or authorized by the state public service commission.

Companies affected are Wisconsin Power and Light Co., \$160,000 for 60,000 residential customers; Wisconsin Public Service Corp. and its subsidiary, Menominee & Marinette Light and Traction Co., \$84,300 for 35,000 home users of current; and Lake Superior District Power Co., \$47,550 for 9,000 residential and about 3,000 other customers.

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# The Latest Utility Rulings

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## Higher Gas Rates Disapproved by Illinois Commission

THE Illinois commission, in an extended opinion, disposed of claims by the Peoples Gas Light and Coke Company for higher gas rates and annulled proposed rate schedules. The commission determined a rate base by consideration of reproduction cost and original cost, rejecting a claim for reproduction cost as a rate basis. A return of 5.95 per cent was held to be fair.

Deduction was made for accrued depreciation after consideration of functional depreciation as well as observed condition of the property. No separate allowance was made for going concern value. A claim for working capital allowance was reduced in view of the average time required between rendition of gas service and collection, credit extended to the company as an offset to credit extended to customers, and accumulation of cash for tax payments at a future date.

Original cost rather than reproduction cost was held to be the proper basis for annual depreciation allowance. The commission ruled that there could be no requirement that the present ratepayers be asked to pay as depreciation expenses to be met out of current revenues any greater amount than the actual loss caused by depreciation in a year at the present time so long as the account of depreciation deducted from cost new in arriving at present value was taken as the actually existing depreciation.

Allowance was made for new business expense, but it was held that losses and

expenses on merchandising operations should not be allowed where merchandise was sold primarily for direct profit rather than for the purpose of inducing greater use of gas. The commission said:

If the company is in fact in danger of losing its present customers and under necessity of finding new uses for gas, it is questionable whether the full expense of sales retention must be borne by the ratepayer. The evidence in the record indicates that substantially every residential consumer of the company uses gas for cooking and it is apparent that the expenses incurred by both the gas company and the electric company for retention or promotion of the business of each would fall upon the same householders if the expenses of the type under consideration were allowed as operating expenses to these utilities and recovered from the consumers in rates. It is the opinion of this commission that the householder in Chicago should not be called upon to pay in his rates for gas services the costs which the company may incur to hold his business, and also to pay in his rates for electric service the cost which the electric company may incur in an effort to take that business away from the gas company. The stockholders of the company may permit the management to incur expenses to retain such business as it shall see fit, but they cannot look to the ratepayer to reimburse them for such expenses.

The commission approved the action of the company in litigating tax assessments which, according to the experience of the company, had resulted in tax reduction, benefiting the ratepayer. Allowance was made for legal expense incurred in this direction. *Re Peoples Gas Light and Coke Co. (Docket No. 24792).*



## Discount or Nonpenalty Period for Public Offices

THE Pennsylvania commission has ordered all gas, electric, telephone, and water companies having discount or nonpenalty periods provided for in their

respective tariffs to extend such periods so as to afford a 30-day period in the case of bills rendered to the commonwealth or any department or institution

## PUBLIC UTILITIES FORTNIGHTLY

thereof for the checking of such bills by the fiscal officers of the commonwealth. The commission held that such extension would not create unlawful discrimina-

tion. *Pennsylvania Public Utility Commission v. All Gas, Electric, Telephone, and Water Companies* (Complaint Docket No. 11295).



### Special Rates for Wholesale Service to Rural Coöperative Associations

THE Kentucky commission established a special classification and tariff for electric power to be furnished by utility companies to rural coöperative associations. The commission held that such a tariff was fair and compensatory and not unreasonably discriminatory in relation to rates and charges for other classes of service. The commission said in part:

The level of the proposed rate is somewhat above that desired by the Rural Electrification Administration but lower than the standard rates of the various companies for light and power service or for wholesale service to other small utilities. So far as it could be determined, however, the proposed rate is substantially higher than the increment costs for even the highest cost producer of the group of companies cited in this docket. In short, it is intended that the proposed rate will cover the out-of-pocket costs incident to this service and, in addition, contribute a substantial margin to apply against general overhead costs and fixed

charges of the utility, thus eventually making possible reductions in the charges for other classes of service.

Holding that the rate was not discriminatory, the commission gave as its reasons: Rural nonprofit electrification coöperative associations constitute a distinct and reasonable classification of service with load-building programs likely to produce characteristics substantially dissimilar from any other class of electric business, particularly in diversity with existing loads; special classification would attract and promote new business; such service is competitive; ability to pay is an element to be considered in determining a fair and reasonable rate level; development of rural electrification will have material social advantages which will benefit the public generally. *Re Wholesale Rates to Rural Coöperative Associations* (Administrative Order No. 22).



### Competitive Rates for Service from Leased Municipal Plant

THE Southern California Edison Company, Ltd., was authorized by the California commission to lease from the city of Vernon the city's municipal electric plant. The commission pointed out that it had no jurisdiction over the construction and operation of municipal electric plants and that the rates charged by such plants were not subject to review by the commission, as are the rates of a private utility. Referring to a former decision that private utilities have the right to meet the rates of publicly and privately owned plants, the commission said in part:

a utility had the right to meet in good faith a competitive rate without rendering itself subject to a charge of unlawful locality discrimination. Protestants do not challenge the rates now charged by Edison Company under existing conditions. But they contend that by the execution of the proposed agreement, competition between the city of Vernon and the Edison Company is terminated and therefore the principles announced . . . no longer apply.

The city of Vernon is not selling its plant to the Edison Company. It is leasing the plant to the company for a term of ten years subject to several conditions. One of these conditions, dictated according to the record, by the city, is that the Edison Company will not charge in Vernon rates higher than those charged by the bureau of power and light of the city of Los Angeles or rates higher

## THE LATEST UTILITY RULINGS

than it charges for similar service elsewhere in Los Angeles county. Thus, while the city transfers possession of its plant to the Edison Company, it does so only upon condition that its rate policy be maintained. The municipal plant must be kept in good operating condition and shall be operated under its own power, complete with all its auxiliaries, for a period of approximately thirty minutes, at intervals of not less than, nor more than, approximately once in each thirty days. While this operation will be under Edison Company management, its

purpose is to assure to the city of Vernon a plant ready for operation whenever it has cause to terminate the agreement. In effect, therefore, the competition which now exists justifying the Edison Company to meet the existing rates of the city of Vernon will continue to exist after the execution of the agreement.

*Re Southern California Edison Co., Ltd.  
(Decision No. 29749, Application No. 21065).*



### Financing through Preferred and Common Stock Issues

THE California commission, in authorizing the construction of an electric plant and the issuance of common stock, was of the opinion that a proposed plan for financing a utility enterprise which has not been constructed and the results of its operation not established is unsound where the major portion of the funds needed is to be obtained through preferred stock. At least 50 per cent of the initial investment should be obtained through common stock.

Provisions in the articles of incorporation relating to voting rights were

held to be nullified by the terms of stock sale. It was provided that all shares of stock should have equal voting rights, but it was proposed by the promoters to sell preferred at \$100 per share to the public while common stock was to be sold at \$25 per share. The commission said that this destroyed the equality of voting rights, since a holder of preferred stock who paid \$100 per share would obtain one vote, while \$100 invested in common stock would entitle the holder to four votes. *Re Wikoff (Decision No. 29689, Application No. 21060).*



### Room Rates Held to Be Discriminatory

THE Wisconsin commission, in establishing new rate schedules for two electric utility companies referred to the fact that the companies had been applying a schedule of rates based upon a real estate room count. The commission believed that this type of schedule was discriminatory in several respects, stating:

Complaints received by the commission from time to time, as well as testimony at various hearings, indicate that customers have difficulty in understanding their bills and that the real estate type of rate causes many complaints. It is difficult for the company to explain and the average customer to understand why, within the limits specified in the present rates, a customer in a large house should be required to pay the top price and the secondary prices for more kilowatt hours than does the customer in a small house. Moreover, this differential in

the size of the block, depending on the size of the house, appears to result in charging different rates for electricity used for lighting and small appliances at a time when the use of electricity in household appliances has become a widespread convenience. The removal of such a type of rate will reduce the cost of investigating complaints, reduce the cost of administering the rate, and temper criticism caused by using a rate not readily understood. With the rapid development in the last few years in the use of electrical appliances the relationship between the size of the home and demand for and use of electricity has been seriously unbalanced. An electrified kitchen in a small modern home would require and use more electrical energy than a large home of a few years ago. Another element of discrimination results from the fact that it is practically impossible to keep a currently accurate check of the number of rooms which should be used for billing each residential customer. Both the commission and the company have

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previously taken cognizance of the discriminatory features inherent in room rates by making effective as of July 1, 1935, a schedule of "objective rates" of a different type, together with an inducement rate, in

order to encourage customers to increase consumption.

*Re Northern States Power Co. et al.*  
(2-U-657).



### Guilt of Driver of Uncertificated Motor Vehicle

AMONG the methods used in various states to enforce compliance with requirements that operating authority be obtained from a commission for motor carrier service there may be noted the arrest of drivers of unauthorized motor vehicles. A decision of the New York Court of Appeals indicates that this is not an effective means of law enforcement in New York.

A chauffeur operating an omnibus in connection with an omnibus line was arrested and convicted in a lower court for violating a statutory provision that no omnibus of this sort should be operated without a certificate of public convenience and necessity. The omnibus was registered with the Motor Vehicle Bu-

reau of the state, was not owned by the defendant chauffeur, and was driven by him under the direction of its owner, to whom he turned over fares collected by him.

The court said that on these facts the defendant was not one of the class of persons upon whom the duties defined by the Transportation Corporations Law were imposed. The court held that the prohibition against such operation must be read in connection with another provision of the law indicating that it was to be applied to persons "proposing to operate a bus line." Neither section of the law, it was said, was addressed to a mere chauffeur. *People v. Speciale*, 7 N.E. (2d) 840.



### Conflicting Powers of Commission and City over Rates and Service

TWO decisions by the New York Court of Appeals deal with the question of implied repeal of municipal charter provisions by subsequent statutes delegating power to a public service commission. In one case the court held that the commission had power to fix rates for water furnished to the city of New York, notwithstanding charter provisions giving control to a city commissioner. In the other case the court held that the provisions of the Public Service Law did not appeal the charter provision giving control to the commissioner in respect to the extension of water mains.

The charter provision purported to vest in the commissioner of water supply, gas, and electricity authority to fix in the first instance the "rates, fares, and charges" to be paid to water companies. Another section provided in substance that all contracts concerning the public

water supply should be made only in accordance with the provisions of the act, and another section provided that the commissioner "may exercise superintendence, regulation, and control in respect of the supply of water by such water companies, including rates, fares and charges to be made therefor."

The municipal commissioner, in January, 1934, without notice to the company, suspended the existing contract rate for hydrant service and fixed a new rate. The water company refused to accept the reduced rate, but continued service without a contract with the city. Later the commission investigated rates of the water company and fixed a new hydrant rate.

The city unsuccessfully sought a declaratory judgment declaring the order of the commission null and void in so far as it affected hydrant rates. The court



## THE LATEST UTILITY RULINGS

held that the legislature had attempted to adopt a comprehensive scheme for the regulation of water companies and for the fixing of rates, including rates for public uses. The charter provisions were not expressly repealed, but the court held that the legislature by amending the Public Service Law had expressed a clear intent to repeal the charter provision relating to rates, since it provided by statute that the commission might fix rates "notwithstanding that a higher or lower price had been theretofore prescribed by general or special statute, contract, grant, franchise condition, consent or other agreement." *City of New York v. Maltbie et al.* 8 N.E. (2d) 289.

In the other case the municipal commissioner had ordered a water company to install additional water mains for fire protection purposes. The city obtained a mandamus order to compel such exten-

sion. The appellate division of the supreme court reversed the lower court order on the ground that mandamus was not the proper remedy, since the Public Service Law provided an adequate remedy.

The court of appeals, however, took a contrary view and held that even if it be assumed that the public service commission had concurrent jurisdiction, which it could have exercised in the first instance, the commission had no power to issue a mandate to enforce the municipal commissioner's order, and in this case the commission had no jurisdiction at all. The provision giving the commissioner statutory authority was held not to have been repealed by implication through the enactment of the New York Public Service Law. *City of New York v. New York Water Service Corp.*, 8 N.E. (2d) 294.



## Characteristics of a Common Carrier

THE supreme court of errors of Connecticut, in holding that a trucking company transporting goods under contract was not liable for damages as a common carrier, defined a common carrier as a carrier who holds himself out to the public to carry persons or freight for hire, one whose business it is to carry from one place to another the goods of all persons indifferently.

Ordinarily, it was said, the controlling

factor is the public undertaking, either express or implied from a course of business, to carry for hire the goods of all persons who may apply for such carriage.

A private carrier, on the other hand, carries only for persons with whom he has an initial contract. It is optional with him whether he will accept or reject any business that is offered to him. *Acc-High Dresses, Inc. v. J. C. Trucking Co., Inc.*, 191 Atl. 536.



## Entertains Directory Complaint

THE New York Public Service Commission ruled by a vote of 4 to 1 that it has jurisdiction to entertain a complaint that the New York Telephone Company has fixed "unjust, unreasonable, arbitrary, discriminatory, and extortionate" terms and conditions for publication of subscribers' names in its Red Book or classified directory.

The company had asked for dismissal of the complaint on the ground that pub-

lication of the classified directory was its own private business and not an essential element of its service to the public. The directory, it was alleged, was published merely as an advertising medium.

Commissioner George R. Van Namee, who cast the sole vote for dismissal of the complaint, concurred with this viewpoint.

The majority opinion, written by

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Chairman Milo R. Maltbie, pointed out that the company itself had always listed income and expenses arising from publication of the classified directory as part of its "operations," as defined in the uniform system of accounts set up by the commission. That being the case, Mr.

Maltbie held, either the company's practices with respect to the directory were under the commission's jurisdiction or publication of the book was *ultra vires* and beyond the powers conferred upon the company by its charter of incorporation.



### Other Important Rulings

THE Indiana commission refused to withhold its approval of a contract for the purchase of a waterworks by a city although it was not conclusively shown that the agreed purchase price was not in excess of the actual value of the property involved. The commission said that considering all the evidence and the fact that the duly elected officials of the city had determined that the purchase price was proper, the commission was not called upon arbitrarily to set up its own judgment on the question of value as against the judgment and finding of the city officials. *Re City of Greensburg* (No. 12485).

The Wisconsin commission held that it had as much authority under similar conditions to direct a public utility to extend service into a rural town where it is not operating as to order the utility to extend service in a town where it already is operating. *Schantz et al. v. Madison Gas and Electric Co.* (2-U-1098).

The California commission held that in the transfer and recapitalization of utility properties the amount of securities to be issued should be predicated upon actual cost, if known, or estimated historical cost less accrued depreciation, with land at current market value. The commission did not consider reproduction cost values or allowances for going concern as proper basis to determine the amount of securities to be authorized. *Re San Gabriel Valley Water Service et al.* (Decision No. 29687, Application No. 21034).

The supreme court of Oklahoma held that the corporation commission had power and jurisdiction to determine upon the public convenience and necessity for entrance of a telephone operator into new territory only where the territory is occupied by toll or exchange telephone service, and that an order denying authority to enter unoccupied territory is void and its enforcement may be restrained by a writ of prohibition. *Simpkins et al. v. Corporation Commission of Oklahoma et al.* 67 P. (2d) 961.

The supreme court of Kansas, in upholding the right of a city to issue bonds for the purpose of constructing a municipal light and power plant, declared that there was no statutory requirement that the city procure a certificate of convenience and necessity from the state corporation commission in order to authorize it to establish the proposed plant. *Kansas Power Co. v. Washington et al.* 67 P. (2d) 1095.

The California commission, in refusing to eliminate restrictions from a certificate of convenience and necessity authorizing a warehousing business, said that an application for elimination of restrictions has many of the elements of an application for a certificate *de novo* and that in either instance it is incumbent upon the applicant to show affirmatively a public need for the proposed service. *Re Growers Refrigeration Co.* (Cal.) (Decision No. 29663, Application No. 15528, April 12, 1937).

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

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RECOMMENDATIONS OF COURTS AND COMMISSIONS



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MISSOURI PUBLIC SERVICE COMMISSION

Re J. Louis Cyr, Doing Business As  
Cyr Gas Company

[Case No. 9335.]

*Gas, § 3 — Commission jurisdiction.*

1. The jurisdiction of the Commission extends over the use of any gas plant, real estate, and personal property owned, controlled, and used for the manufacture, distribution, or sale of gas for lighting, heating, or power purposes, p. 436.

*Gas, § 1 — Meaning of "gas corporation" — Inclusion of individual.*

2. The term "gas corporation" as used in paragraph 11 of § 2 of the General Regulatory Act, § 5122 Rev. Stats. Mo. 1929, includes a person engaged in the business of furnishing gas service as a public utility, p. 436.

*Service, § 81 — Commission jurisdiction — Natural gas utility.*

3. The Commission is endowed with power to determine if the services rendered by a natural gas utility are safe and adequate, or, in substance, if the proper instrumentalities and facilities are being used by the gas company performing the service, p. 436.

*Rates, § 92 — Commission jurisdiction — Natural gas utility.*

4. The Commission is vested with power and authority to determine if rates of a natural gas utility are just and reasonable, p. 436.

*Public utilities, § 20 — Test of status — Charter — Franchise rights.*

5. Whether the services rendered by a corporation or individual constitute the acts of a public utility depends upon what is actually being done and does not depend upon any charter authority or franchise rights, p. 436.

*Public utilities, § 55 — Individual operating gas plant.*

6. An individual holding himself out to render gas service, domestic and industrial, indiscriminately, in communities where he is selling and distributing gas, acts as a public utility, p. 436.

*Service, § 47 — Commission jurisdiction — Gas utility — Absence of operating authority.*

7. The Commission is clothed with the power and authority to compel a gas utility that is already in the field rendering utility service to the public indiscriminately to render service in such a way as best to promote the public interest, preserve the public health, and protect those using such utility service, even though the utility does not hold a certificate of public convenience and necessity, p. 436.

[May 24, 1937.]

## MISSOURI PUBLIC SERVICE COMMISSION

**I**NVESTIGATION of an individual doing a gas business; Commission jurisdiction sustained and respondent directed to file rates, rules, and regulations, and to make reasonable improvements.

ANDERSON, Commissioner: This is a matter instituted by the Commission on its own motion pursuant to a complaint lodged with it by the city officials and chamber of commerce of the city of Rich Hill, Missouri. The gravamen of the proceedings is to determine the nature of the gas service furnished by J. Louis Cyr, an individual, doing business as the Cyr Gas Company, within the confines of the city of Rich Hill, Missouri, and to ascertain if the said service is sufficient and adequate and rendered in such a way as to best promote the public interest, preserve the public health, and protect the interest of those using the same.

This cause was set for a hearing by the Commission at its hearing room in Jefferson City, Missouri, on April 26, 1937, after the interested parties had been notified of the time and place of said hearing. On that date a hearing was held before a member of the Commission. J. Louis Cyr, doing business as the Cyr Gas Company, appeared in person. Appearance on behalf of the city of Rich Hill was by the mayor and counsel, and the city of Hume appeared by counsel. R. E. Duffy, chief electrical and mechanical engineer, appeared on behalf of the Commission.

There was evidence to the effect that J. Louis Cyr, doing business as the Cyr Gas Company, at Rich Hill, Missouri, has been since February, 1933, furnishing and distributing

natural gas to the residents of Rich Hill and Hume, Missouri. The gas properties operated by him in this state were acquired from his father, J. Louis Cyr, who lives in Boston, Massachusetts. The properties were acquired by the father at a receiver's sale of the Bourbon Pipe Line Company, most of the distribution system and master lines having been constructed and laid by the Bourbon Pipe Line Company, a Massachusetts corporation, authorized to do business in this state by the secretary of state on January 24, 1931.

J. Louis Cyr, Sr., who resides in Boston, was a creditor of the Bourbon Pipe Line Company, a corporation, in the amount of approximately \$15,000, which indebtedness was incurred for services rendered by J. Louis Cyr in the construction of the distribution system at Rich Hill and Hume, and for work on the master mains from the gas fields to each of those cities.

The Bourbon Pipe Line Company also served three cities located in Kansas, being Mapleton, Fulton, and Prescott.

After J. Louis Cyr, Sr., purchased the properties he proceeded to operate the distribution system in Missouri and Kansas until it was sold to his son, J. Louis Cyr.

When the properties were operated by the Bourbon Pipe Line Company, a corporation, the source of supply for the cities of Rich Hill and Hume



## RE CYR

was in the vicinity of Hume, where there was a local gas field. The gas was piped from the local gas field to Hume and then to Rich Hill. The cities of Mapleton, Fulton, and Prescott, in Kansas, were served by a local field in that vicinity. When the gas field near Hume became nearly exhausted and there was not a sufficient quantity of gas to supply the demand of Rich Hill and Hume there was a pipe line put in from the local field in Kansas, which connected with one of the pipe lines that conveyed the gas from the local field near Hume. Service at the present time is being furnished by the gas that is piped from the Kansas field which connects with the pipe line near Hume.

The Cyr Gas Company has been confronted with a great deal of difficulty in rendering the proper service in Rich Hill and Hume, Missouri. There was proof to the effect that on several occasions the gas pressure had become so low that it would not be lighted at the burner tips, and, as a matter of fact, would go off entirely and remain off for several hours. It was shown that the Cyr Gas Company is equipped to put an odorant in the natural gas being distributed in Rich Hill and Hume, but for some reason it has not done so. Further, that the absence of an odorant increases the hazard to users of the gas in that odorless escaping gas may not be detected as quickly.

The Cyr Gas Company does not have any holder located at Rich Hill or Hume or on the pipe line between Hume and the local field in Kansas from which the main source of supply is derived. A recent difficulty en-

countered by the Cyr Gas Company occurred a few days prior to the hearing as a result of trouble that developed on account of the compressor stations located on the pipe line between Hume and the local field in Kansas. These compressors are equipped to work automatically to maintain the proper pressure for the gas supply. A portion of the pipe line from the local field in Kansas to Rich Hill is a 6-inch line, but for quite a distance the pipe tapers down to a 2½-inch line. The pipe line between Hume and Rich Hill, Missouri, is a 6-inch pipe line. There is an outer belt pipe line of that size around the city of Hume; also a similar outer belt pipe line at Rich Hill, Missouri. The gas pressure in the master line is from twenty to seventy pounds, while the pressure of the gas that reaches the burner tip is from five to seven ounces. Both of the compressors are located at the same point on the pipe line, but in view of the fact that there is no gas holder or storage facility tanks, when the compressors fail to work properly it necessarily follows that the gas goes off, and there is no gas pressure at the burner tips. There was proof to the effect that there had been several minor explosions experienced in the cities of Rich Hill, and Hume, Missouri.

The Commercial Pipe Line, which is a larger pipe line located in Kansas, is approximately 6 miles from the nearest connection of the pipe line of the Cyr Gas Company. The Cities Service Company line is approximately 12 miles from the gas line of the Cyr Gas Company. The approximate length of the pipe lines of the Cyr Gas Company is about 70 miles.

## MISSOURI PUBLIC SERVICE COMMISSION

There was proof to the effect that it would be an expensive proposition for the Cyr Gas Company to obtain an additional supply of natural gas from the Commercial Pipe Line or the Cities Service Company lines. There was also proof to the effect that the local field near Hume is failing rapidly, but there is a probability, if deeper wells are drilled in that vicinity, of a greater supply of gas being obtained.

Previous to the acquisition of the gas properties by J. Louis Cyr, Jr., franchises had been granted to his predecessors by the cities of Rich Hill, Hume, Mapleton, Fulton, and Prescott, but at no time had there been a certificate of convenience and necessity granted by this Commission. The gross receipts for the distribution of gas at the five towns served by the Cyr Gas Company in 1936 was \$8,694.21, and the operating expenses were \$12,030.10, a loss of \$3,335.89, which loss was borne by J. Louis Cyr, Jr., and J. Louis Cyr, Sr. The gross amount of the revenue received in Missouri was \$5,895.95. In substance, the properties are being operated at a substantial loss. The cities of Rich Hill and Hume are desirous of retaining the gas service, and, if necessary, are willing to pay a higher rate in order that the Cyr Gas Company may properly operate.

There are 169 gas meters in Rich Hill. These meters are in residences, with the exception of the bakery, stores, and other places of business, of which there are not many.

The testimony of J. Louis Cyr was, further, to the effect that since the Bourbon Pipe Line Company had been authorized to do business in this state

by the secretary of state on January 24, 1931, and since the cities of Rich Hill and Hume had each granted a franchise to that company to sell and distribute gas in each of these places it was not necessary to obtain a certificate of convenience and necessity from the Public Service Commission of this state, but he was willing to submit to the jurisdiction of the Commission if the Commission found that the sale and distribution of natural gas by him in the towns of Rich Hill and Hume constitute acts of a public utility. He further testified that if the rates were increased at Rich Hill and Hume he would be able to give a satisfactory and adequate gas service in each of the towns. He admitted that he holds himself out to render gas service to the public indifferently, both domestic and industrial, in the cities of Rich Hill and Hume.

[1-7] In the instant case we reach the vital and pertinent question, which is what disposition should be made of the citation in this cause initiated by the Commission after receipt of a complaint from the city of Rich Hill, Missouri. In view of the fact that the defendant company does not have a certificate of convenience and necessity, and since none of its predecessors ever obtained a certificate of convenience and necessity, it is necessary for the Commission to determine if the distribution and sale of natural gas by that company in the cities of Rich Hill and Hume, Missouri, constitute the acts of a public utility subject to the jurisdiction of this Commission and coming within the purview of the General Regulatory Act. There are certain sections in that act which the Commis-

## RE CYR

sion must consider in order to ascertain if the acts of the Cyr Gas Company are subject to regulation by this Commission. Paragraphs 10, 11, and 25 of § 2 of the General Regulatory Act, § 5122 Rev. Stats. Mo. 1929, are as follows:

"Paragraph 10: The term 'gas plant,' when used in this act (chapter), includes all real estate, fixtures, and personal property owned, operated, controlled, used or to be used for or in connection with or to facilitate the manufacture, distribution, sale, or furnishing of gas (natural or manufactured) for light, heat, or power.

"Paragraph 11: The term 'gas corporation,' when used in this act (chapter), includes every corporation, company, association, joint stock company or association, partnership, and person, their lessees, trustees, or receivers appointed by any court whatsoever, owning, operating, controlling, or managing any gas plant operating for public use under privilege, license, or franchise now or hereafter granted by the state or any political subdivision, county, or municipality thereof."

"Paragraph 25: The term 'public utility' when used in this act (chapter) includes every common carrier, pipe-line corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, and heat or refrigerating corporation, as these terms are defined in this section, and each thereof is hereby declared to be a public utility and to be subject to the jurisdiction, control, and regulation of the Commission and to the provisions of this act (chapter)."

It is evident, under paragraph 10, that the jurisdiction of this Commission extends over the use of any gas plant, real estate, and personal property owned, controlled, and used for the manufacture, distribution, or sale of gas for lighting, heating, or power purposes. Under paragraph 11 the term "gas corporation" includes every corporation, company, association, joint stock company, association, partnership, person, lessee, trustee, or receiver appointed by any court whatsoever. Under paragraph 25 the term "public utility" includes every gas corporation. When the gas corporation is serving the public then the same is declared a public utility, as a matter of law, and is subject to the jurisdiction, control, and regulation of the Commission, which control and regulation are provided within the General Regulatory Act. Relative to the service furnished by the defendant company, it is conclusive under paragraphs 10, 11, and 25 of the aforementioned section of the General Regulatory Act that the Cyr Gas Company is subject to the jurisdiction and control of this Commission. That being true, it is obligatory upon the Commission to determine what authority it has to control and regulate the defendant gas company. Under § 68 of the General Regulatory Act, § 5189, Rev. Stats. of Missouri, 1929, it is provided that the Commission is endowed with the power to determine if the services rendered by a gas corporation are safe and adequate, or, in substance, if the proper instrumentalities and facilities are being used by the gas company performing the service. Also, under that section the Commission is vested with

## MISSOURI PUBLIC SERVICE COMMISSION

the power and authority to determine if the rates are just and reasonable. Under § 69 of the General Regulatory Act, § 5190, Rev. Stats. Missouri, 1929, the Commission has the general supervision of all gas corporation, whether the gas corporation has authority under any special or general law, or under any charter or franchise for the erection or maintenance of the necessary instrumentalities or facilities for the manufacture or distribution of gas. Under paragraph 2 of the same section the Commission has the power to order such reasonable improvements as would promote the public interest and preserve the public health and protect those using such gas. Under § 72, Rev. Stats. Missouri, 1929, § 5193, a gas corporation is not entitled, as a matter of law, to exercise any right or privilege under any franchise granted it by any municipality until the gas corporation has obtained from the Commission a certificate of convenience and necessity authorizing it to operate as a public utility. Whether the services rendered by a corporation or individual constitute the acts of a public utility depends upon what is actually being done, and does not depend upon any charter, authority, or franchise rights. In the case at bar, there was ample evidence to the effect that the defendant in his operations has been holding himself out to render service, domestic and industrial, indiscriminately. The functions performed by the defendant and the character of the use made of his property are the determining factors as to whether or not the service rendered by him constitutes the acts of a public utility and

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comes within the purview of the statute. State ex rel. Buchanan County Power Transmission Co. v. Baker (1928) 320 Mo. 1146, 1151, P.U.R. 1929A, 106, 9 S. W. (2d) 589; State ex rel. Lohman & Farmers Mut. Teleph. Co. v. Public Service Commission (1929) 323 Mo. 818, P.U.R.1930A, 160, 19 S. W. (2d) 1048.

Since the acts of the defendant company do constitute those of a public utility, the Commission should determine what authority it has to regulate and control the service rendered by it as a gas corporation. It is a well-recognized rule of statutory construction that effect must be given, if possible, to the whole of the statute and every part thereof, so that each section, word, clause, or sentence be made operative. State ex rel. Dean v. Daues (1929) 321 Mo. 1126, 14 S. W. (2d) 990; Hannibal Trust Co. v. Elzea (1926) 315 Mo. 485, 286 S. W. 371; Lauck v. Reis (1925) 310 Mo. 184, 274 S. W. 827. If every word and clause of the General Regulatory Act are treated so that the same are operative it would mean that the Commission is vested with the power and authority to regulate the gas service performed by the defendant company under §§ 68 and 69 of the General Regulatory Act, and, under § 72, to determine whether or not public convenience and necessity exists before a utility is permitted to enter a field to render utility service. A reasonable construction of those sections forces the conclusion that the Commission is clothed with the power and authority to compel a utility that is already in the field rendering utility service to the public indiscriminately to render

## RE CYR

those services in such a way as to best promote the public interest, preserve the public health and protect those using such utility services, and to hold otherwise would mean that the nadir of regulation had been reached. If the same were not true the General Regulatory Act would not provide nor afford a well-rounded scheme of regulation. And to conclude that a complete scheme of regulation is not provided by the regulatory act is unbelievable.

In view of the fact that the defendant operating a gas company is holding himself out to serve the towns of Rich Hill and Hume, Missouri, indiscriminately as a public utility the Commission deems it advisable to assume jurisdiction and require the defendant to file with the Commission and publish schedules showing all rates and charges made or to be made by him, all contracts, rules, and regulations relating to the rates and services, and to make annual reports as provided by statute, and an order expressing those views will accordingly be so issued.

Hargus, Chairman, and Boyer, Nortoni, and Ferguson, Commissioners, concur.

### ORDER

A report having been filed in this case on this date, it is, therefore,

*Ordered:* 1. That the Commission take jurisdiction of the subject matter in this cause and retain jurisdiction for future orders as the facts may from time to time warrant.

*Ordered:* 2. That J. Louis Cyr, doing business as Cyr Gas Company, in the cities of Rich Hill and Hume, Missouri, be and is hereby directed to file with the Commission and print and keep open for public inspection schedules showing all rates and charges made, established, and enforced or to be charged and enforced, all forms of contracts or agreements and all rules and regulations relating to rates, charges, or service used or to be used and all general privileges and facilities granted or allowed by such J. Louis Cyr, doing business as Cyr Gas Company, in the distribution and sale of gas in the cities of Rich Hill and Hume, Missouri, and file annual reports.

*Ordered:* 3. That J. Louis Cyr, doing business as Cyr Gas Company, be and he is hereby *ordered* to make reasonable improvements of his distribution system as may be necessary to render proper and adequate gas service so as to preserve the public health and protect the users of such gas.

*Ordered:* 4. That this order shall be in full force and effect ten days from this date and that the secretary of the Commission forthwith serve certified copies thereof upon all interested parties, and that the interested parties notify the Commission before the effective date of this order, in the manner prescribed by § 25 of the Public Service Commission Law (§ 5145, Rev. Stats. Mo. 1929), whether the terms of this order are accepted and will be obeyed.

MAINE PUBLIC UTILITIES COMMISSION

Public Utilities Commission  
v.  
New England Telephone & Telegraph  
Company

[F. C. 1087.]

*Monopoly and competition, § 34 — Invasion of territory — Requirements of "public."*

1. The word "public" as used in connection with the word "convenience" in a statute prohibiting invasion of territory, except after a declaration by the Commission that public convenience and necessity require a second public utility, relates to the effect upon the people of the neighborhood in contrast to the private rights or benefits of the individual; and the word "necessity" would seem to indicate something that is needful, essential, requisite, or conducive to public convenience, p. 441.

*Monopoly and competition, § 83 — Telephone service — Public or private need — Saving in toll calls.*

2. Public convenience and necessity requiring an extension of telephone service into territory of another company are not shown when the applicant for service is the only party interested, and interested solely to the extent of saving the cost of toll calls, since such interest is private rather than public, p. 441.

[April 12, 1937.]

**P**ETITION for extension of telephone service into territory served by another company; petition denied.

APPEARANCES: Alfred W. Fuller, East Winthrop, pro se; Herbert E. Foster, Winthrop, for Lewiston, Greene and Monmouth Telephone Co.; George R. Grant, Boston, Mass., for New England Telephone and Telegraph Co.

By the COMMISSION: Alfred W. Fuller, who lives in East Winthrop, requested telephone service from the New England Telephone and Telegraph Company. Mr. Fuller's residence is in the territory of East Winthrop, now being served by the Lewis-

ton, Greene and Monmouth Telephone Company. Mr. Fuller's business interests are in Augusta, and particularly in Togus, where he is now operating a restaurant and store, and his sole reason for desiring New England Telephone and Telegraph Company service in the Augusta area is to obviate the toll call of 10 cents per call to Augusta, if he has an installation by the Lewiston, Greene and Monmouth Telephone Company.

The evidence shows that there are several people occupying cottages along the shore of Cobbosseecontee lo-



## MAINE PUBLIC UTILITIES COMMISSION

cated south and in the direction of Winthrop from Mr. Fuller's residence, who are enjoying New England Telephone and Telegraph Company service. These installations have been in existence for a good many years. The last regular service of the New England Telephone and Telegraph Company in the direction of Winthrop from Augusta is at the Augusta Water District's pumping station, which is some half mile toward Augusta from Mr. Fuller's residence.

[1, 2] Section 4 of Chap. 68 of the Rev. Stats. reads as follows:—

"No such consent and no license, permit, or franchise shall be granted to any person, association, or corporation to operate, manage, or control any public utility of the kind named in the preceding section in any city or town where there is in operation a public utility engaged in similar service or authorized therefor until the Public Utilities Commission has made a declaration after a public hearing of all parties interested that public convenience and necessity require such second public utility."

After due notice to the interested parties public hearing was held in accordance with the section just quoted and the facts as previously outlined were presented to the Commission.

It seems incumbent upon the Commission to find that public convenience and necessity require the New England Telephone and Telegraph Company to perform this service for Mr. Fuller. In one sense the word "public" means everybody, the people, the whole body politic, but in another sense it does not mean all the public nor most of the people nor very many peo-

ple of a place but so many of them as may be contradistinguished from a few. It seems to be opposed to the word "private."

The word "public" as used in connection with the word "convenience" we construe to mean as the effect upon the people of the neighborhood in contrast to the private rights or benefits of the individual; and the word "necessity" would seem to indicate something that is needful, essential, requisite, or conducive to public convenience. As the evidence is presented in this matter, and as Mr. Fuller frankly states, he seems to be the one party interested, and interested solely to the extent of saving 10 cents per toll call on a call from Winthrop to Augusta, in case his telephone service is via the Lewiston, Greene and Monmouth Telephone Company.

The Lewiston, Greene and Monmouth Telephone Company is apprehensive that if the New England Telephone and Telegraph Company is authorized to render Mr. Fuller service, that it may result in a substantial loss of subscribers to the Lewiston, Greene and Monmouth Telephone Company, with a resulting loss of revenue and perhaps an impairment of the service which they are rendering.

It is conceded that the Lewiston, Greene and Monmouth Telephone Company is rendering very adequate service and we find in this case that the evidence is insufficient to establish that public convenience and necessity require the invasion of the Lewiston, Greene and Monmouth Telephone Company's territory by the New England Telephone and Telegraph Company in this particular instance.

The petition is, therefore, dismissed.

UNITED STATES DISTRICT COURT

UNITED STATES DISTRICT COURT, N. D. CALIFORNIA, S. D.

California Water & Telephone Company  
v.  
Railroad Commission of California et al.

(19 F. Supp. 11.)

*Valuation, § 39 — Measures of value — Reproduction cost — Constitutional requirements.*

1. An express finding of the Commission that it has rejected all the evidence of reproduction cost in arriving at a rate base makes it clear that such rejection and consequent ignoring of reproduction cost in arriving at the fair value of the property denies the utility company due process of law, p. 444.

*Valuation, § 330 — Going concern value — Unconstitutional denial.*

2. The refusal of a Commission to consider going concern value in its determination of rates is a denial of due process to the public utility, it appearing that going concern value has not been allowed either directly or indirectly, p. 446.

*Return, § 9 — Basis — Fair value.*

3. Failure of a Commission to determine fair value, the essential element in fixing rates, is a denial of due process when such failure is not inadvertent and the entire decision of the Commission does not show that it has in fact determined fair value but, on the other hand, the Commission has announced its intention to fix the rate upon the historical cost, p. 447.

*Appeal and review, § 49 — Scope of review — Determination of value.*

4. The courts, in reviewing a Commission's rate order, need not attempt to fix the fair value of the property upon the record before it or ascertain whether the rates fixed by the Commission are confiscatory when the Commission has denied to the utility due process of law by rejecting evidence of value and refusing to include essential elements of value in fixing the rate base, p. 447.

[March 24, 1937.]

**I**NJUNCTION suit to restrain enforcement of order of California Commission reducing water rates; permanent injunction granted. For Commission decision, see 3 P.U.R.(N.S.) 405.

PER CURIAM: Following complaints by National City and Chula Vista, the Railroad Commission of California, upon its own motion, investigated the rates and service of

The Sweetwater Water Company, now called the California Water and Telephone Company. On December 1, 1933 (3 P.U.R.(N.S.) 405) the Commission made an order reducing

# CALIFORNIA WATER & T. CO. v. RAILROAD COM.

rates. Plaintiff brought suit for temporary and permanent injunction. A restraining order was issued. Thereafter, upon stipulation, an interlocutory injunction was issued. The case was submitted for decision to a court of three judges upon the record made before the Commission, supplemented by affidavits.

The system owned by plaintiff obtains its water by impounding the surface flow of the Sweetwater river and its tributaries. It serves the public in the cities of Chula Vista and National City, a portion of the city of San Diego, and certain unincorporated areas in the vicinity of said municipalities, all in San Diego county, California. The average number of consumers is 4,620. The population served is about 20,000 and the area about 5,300 acres. Plaintiff claims that the fair value of its properties used and useful in the conduct of the business is over \$3,000,000.

The Commission determined that "a rate base developed as follows would be reasonable:

Physical Property—Non-landed ..	\$2,000,000
Lands and Rights of Way .....	150,000
Water Rights .....	20,000
Cash Working Capital and Material and Supplies .....	35,000

Total Rate Base ..... \$2,205,000"

(3 P.U.R.(N.S.) at p. 419.)

In its decision the Commission sees "\$265,000 as a safe conception of annual revenue," and says that the company will earn "slightly more than 6 per cent on the rate base."

The company points out that the Commission "found a rate base predicated on its finding that the historical or original cost of plaintiff's plant, taking land at present values and in-

cluding an allowance for cash working capital and materials and supplies, was \$2,205,000. It found that a gross revenue of \$265,000 would normally be produced under the old rate schedule and that its new rate schedule would reduce this by \$29,000. Deducting the operating expenses as found by the Commission of \$89,602 and depreciation, likewise as found by it and based on the sinking-fund method, of \$17,000, leaves a net revenue of \$129,398. On the rate base of \$2,205,000 this net revenue produces a rate return of only 5.8 per cent.

And in this connection it is asserted by the company that "water rights having an uncontradicted minimum appraised value of at least \$250,000 were eliminated and in lieu thereof only \$20,000, an alleged historical cost, was allowed"; that "going concern value, having an uncontradicted appraised value of at least \$200,000, was entirely disallowed"; that there were also erroneous disallowances for lands and rights of way for the present value of nonlanded operative properties, for depreciation, uncollectible bills, operating, and other expenses; that adjusting the findings of the Commission to correct these alleged disallowances, the rate base would be \$2,940,228; that after proper deductions, the net return would be \$112,586, which would produce a rate of return of less than 4 per cent on the rate base of \$2,205,000 found by the Commission.

Invoking the Fourteenth Amendment, plaintiff attacks the validity of the order fixing the rates, upon the grounds (1) "that the Commission acted in excess of its powers, arbi-

## UNITED STATES DISTRICT COURT

trarily, and intentionally contrary to law"; and denied the company due process of law in taking the property; (2) that the rates prescribed are confiscatory in that they do not furnish a fair return upon the fair value of the property.

The general principle applicable to rate cases has been so often declared by the United States Supreme Court that it may be said to be axiomatic.

"The established principle is that as the due process clauses (Amendments V and XIV) safeguard private property against a taking for public use without just compensation, neither nation nor state may require the use of privately owned property without just compensation. When the property itself is taken by the exertion of the power of eminent domain, just compensation is its value at the time of the taking. So, where by legislation prescribing rates or charges the use of the property is taken, just compensation assured by these constitutional provisions is a reasonable rate of return upon that value.

"To an extent value must be a matter of sound judgment, involving fact data." *West v. Chesapeake & P. Telegraph Co.* (1935) 295 U. S. 662, 671, 79 L. ed. 1640, 8 P.U.R.(N.S.) 433, 438, 55 S. Ct. 894, and see cases cited in footnote.

Was due process accorded the plaintiff? The plaintiff contends that it was denied due process among other things, because (1) the Commission arbitrarily rejected reproduction cost estimates and determined the rates without considering reproduction costs; (2) the Commission arbitrarily rejected the evidence concerning the going concern value and fixed the rate

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base without any consideration thereof or allowance therefor; (3) in arriving at its value of the real estate used and useful in plaintiff's business the Commission ignored the testimony thereon and arbitrarily fixed the value; and (4) in fixing the valuation of plaintiff's water rights it arbitrarily rejected the testimony as to these values and arbitrarily assigned the value of \$20,000 instead of the amount shown by the evidence to be \$250,000.

[1] *Reproduction costs.* We will first consider the question of whether the Commission denied due process of law in its determination with reference to reproduction costs. It is true that the value fixed by the Commission was within the range of values assigned by the witnesses as the reproduction cost of the system, but as we shall presently show this result was obtained not by consideration of reproduction costs in connection with the other evidence but by rejecting such cost estimates upon the theory announced by the Commission that the reproduction cost estimates were unreliable.

A similar situation was recently presented to this court in the case of *Pacific Gas & E. Co. v. California R. Commission* (1934) 5 F. Supp. 878, 4 P.U.R.(N.S.) 260, wherein we held that a failure to consider reproduction costs in arriving at the fair value of the property of a public utility was a denial of due process, although based upon the contention that the estimates furnished were not reliable, because, in so doing, the Commission arrived at its rate without considering one of the elements essential to the proper fixing of the fair value of the property. The question involved in that case cannot be dis-

## CALIFORNIA WATER & T. CO. v. RAILROAD COM.

tinguished from that involved in the case at bar and the Commission has not attempted so to do.

In the case at bar, reproduction cost estimates were submitted by the Commission and by the company, and both were rejected. Of the company's estimates the Commission said in its decision fixing the rates that they were "nebulous and too speculative as a basis for fixing rates." Of the estimates presented by its own engineers it said, quoting further from the decision:

"With respect to the Commission engineer's reproduction cost estimate, it was shown that certain items of property had been omitted. It was claimed that insufficient overheads were allowed. It was also claimed that 1932 prices were altogether too low for appropriate use in such an estimate looking to the future.

"As may be seen, the testimony on reproduction cost less depreciation ranges from \$1,316,726 (Commission estimate) to \$2,471,491 (company estimate). Obviously, both of these amounts cannot represent present value, and it is probable that neither of them does.

"Neither the estimates of the company nor the Commission with respect to reproduction cost of the dam should be determinative in fixing a rate base because they are both unsound and impracticable. Major consideration should be given to the historical cost of the property. . . ." (3 P.U.R. (N.S.) at p. 414.)

In the decision under the caption "Rate Base. Historical v. Reproduction Values," discussion of the subject begins with these words: "We believe historical rather than reproduction

values should determine the rate base herein"; and ends with these, "Due consideration being given to each of these groups of figures, we arrive at the conclusion that the historical cost should be the fundamental basis in finding the rate base, and for this purpose a figure of \$2,000,000 will reflect our judgment. To this must be added land at its present market value." (3 P.U.R. (N.S.) at pp. 413, 415.)

As was said by the Supreme Court in *West v. Chesapeake & P. Teleph. Co. supra*, the Commission discussed the evidence "only to indicate its disapproval."

This method of determining a rate base is not new with the Commission. In the case of *Pacific Gas & E. Co. v. California R. Commission, supra*, this court had occasion to pass upon an order of the Commission reducing rates of the utility applicable to its natural gas service. We granted an interlocutory injunction. Thereafter the Commission instituted supplemental proceedings. We quote from its opinion herein; dated April 23, 1934 (39 Cal. R. C. R. 209, 212) as follows:

"The opinion of the district court of the United States on the recent motion for interlocutory injunction held that inasmuch 'as the Commission has departed from the rules laid down by the Supreme Court for the determination of a proper rate base, a hearing of the case de novo is inescapable. In such a situation, it becomes our duty to grant the motion for an interlocutory injunction. . . .'

"The court made specific reference to the observations contained in the Commission opinion that 'During its

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entire history in establishing reasonable rates for utilities similar to this company, to determine a proper rate base this Commission has used the actual or estimated historical costs of the properties undepreciated, with land at the present market value. Consistent with this, it has used the sinking-fund method to determine the allowance for depreciation to be included in operation expenses.' The court then observed 'This theory, which was followed by the Commission in determining a rate base, has been repudiated by the Supreme Court. (Citing cases.)'

"... The Commission in fixing rates in this matter followed the policy which it has consistently followed during the past twenty-one years in fixing rates for this and like utilities. To determine the proper rate base the Commission used the best available historical cost data reflecting cost of the properties undepreciated with land at market value. Consistent with this it used the sinking-fund method to determine the allowance for depreciation to be included in operating expenses."

In view of the express finding of the Commission in the case at bar that it rejected all the evidence of reproduction cost in arriving at its conclusion it is clear that such rejection and consequent ignoring of reproduction cost in arriving at the fair value of the property denied the plaintiff due process of law.

[2] *Going concern value.* It has been established by repeated decisions of the Supreme Court that an essential element of the fair value of property used and useful by a public utility in its business as such is its going concern value. The refusal to consider such an element of value in arriving

at its determination of the rate is a denial of due process to the public utility. The matter is thus disposed of by the Commission in its decision, quoting the first and concluding sentences upon the subject:

"(B. Going Value.) The company has claimed an addition of \$200,000 for going value. This is Nenzel's estimate. Again, Bowen was higher with the figure of \$225,000. Both figures may be analyzed with ease and readily vanish upon dissection.

"We are unable and unwilling to place any amount upon the 'going value' of this utility in the fixation of rates." (3 P.U.R.(N.S.) at p. 417.)

It is true that where allowance is actually made for going concern value which is the reasonable equivalent thereof as in the case of *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 77 L. ed. 1180, P.U.R.1933C, 229, 53 S. Ct. 637, that the failure to fix such value under the head of going concern value is not confiscatory if otherwise allowed. Here there is no contention that going concern value was allowed either directly or indirectly. The failure to consider such value is a denial of due process of law.

Because of the denial of due process of law in the two respects indicated, namely, the failure to ascertain and consider reproduction cost, and failure to establish or consider going concern value, a permanent injunction must be issued.

In view of our conclusion as to these two important items, it is unnecessary to consider plaintiff's contention with reference to the values of real estate and water rights. With



## CALIFORNIA WATER & T. CO. v. RAILROAD COM.

reference to real estate values the determination of the Commission upon that factual question would be binding on the court unless the testimony with reference thereto has been arbitrarily rejected or the consideration of the testimony was capricious and arbitrary. The reasons we have already stated make it necessary to permanently enjoin the rates, and it is unnecessary to consider these questions further than to indicate that we have not passed upon the question of real estate value. The same statement will apply also to the value of water rights. The contention is that the evidence presented by the plaintiff upon the matter was arbitrarily rejected and that there is no other evidence before the Commission upon this subject and consequently that the fixing of the value at \$20,000 rather than at the value testified to by plaintiff's experts was an arbitrary exercise of authority. The matter of fixing the value of water rights which have been appropriated for purposes of public distribution by a public utility in California is one of extreme difficulty, and one that we find it unnecessary to decide.

[3] In addition to what we have stated, it should be noted that the Commission did not undertake to determine the essential element necessary to fix the rates, namely the fair value of the property. If this failure has been inadvertent, and if the entire decision of the Railroad Commission showed that it had in fact determined the fair value

of the property and that for the purpose of its decision, it deemed the finding of a fair rate base the equivalent of a finding of fair value, the decision might be sustained so far as this particular question is concerned. But where the Commission declined to consider reproduction cost and announced its intention to fix the rate upon the historical cost, its conclusion that the amount of \$2,205,000 is a fair rate base is equivalent to stating that that amount represented the judgment of the Commission as to the historical cost of the property. We see no escape from the conclusion that it is a denial of due process to fix the rates of a public utility without ascertaining the fair value of the property.

[4] In view of what we have said it is neither necessary nor proper that we should attempt to fix the fair value of the property upon the record before us nor ascertain whether the rates fixed by the Commission are confiscatory. It is sufficient to say that where the public utility makes a substantial claim to a higher rate of return than allowed it by the Commission, and the Commission has denied the public utility due process in fixing the rate, a permanent injunction should be granted.

Plaintiff may have decree for permanent injunction as prayed for, and judgment for its costs. Counsel for plaintiff may submit decree and special findings of fact and conclusions of law as provided by Equity Rule 708½.

MISSOURI PUBLIC SERVICE COMMISSION

MISSOURI PUBLIC SERVICE COMMISSION

Re Home Telephone Company,  
Incorporated

[Case No. 9180.]

*Monopoly and competition, § 83 — Telephone company — Application for certificate.*

1. The Commission, in determining whether a certificate of convenience and necessity should be granted to a new telephone corporation, should take into consideration the telephone service that is being rendered at the present time if there is a telephone company serving the field in question, p. 455.

*Certificates of convenience and necessity, § 77 — Factors considered — Responsibility of applicant.*

2. The Commission, in determining whether a certificate of convenience and necessity should be granted to a telephone company, should consider the responsibility of the applicant to render the service in the field that it desires to serve, p. 455.

*Certificates of convenience and necessity, § 83 — Factors considered — Consent of municipal authority.*

3. The Commission, in determining whether a certificate of convenience and necessity should be granted to a telephone company to construct a plant and furnish service in a city, should consider whether or not the consent of municipal authorities has been properly obtained, p. 455.

*Certificates of convenience and necessity, § 88 — Factors considered — Public and private interests.*

4. The Commission, in determining whether a certificate of convenience and necessity should be granted to a telephone company, is justified in taking into account, and should take into account, all of the facts and circumstances which may indicate whether or not the applicant's purpose is primarily to serve the public as a utility or to serve private interests, as the Commission cannot lend its countenance to the purpose of entering a field for private gain and speculation rather than to serve the public interest, p. 455.

*Franchises, § 30 — Misrepresentation in obtaining.*

5. A franchise was held to have been unfairly obtained by a telephone company seeking a certificate of convenience and necessity from the Commission where it obtained the franchise from a retiring council and mayor, contrary to the usage of the municipality, on the last day of such officials' term of office, upon a representation that the franchise was to be solely for the purpose of using it in a motion for rehearing pending before the Commission on an application for a certificate, p. 456.

*Certificates of convenience and necessity, § 19 — Jurisdiction of Commission — Franchises.*

6. The Commission, although having no jurisdiction over a municipality,

## RE HOME TELEPHONE CO., INC.

does have the power to refuse to become a party to a wrongdoing by refusing to ratify and approve such wrongdoing, or approving the improper granting of a franchise offered in evidence by a telephone company applying for a certificate of convenience and necessity, p. 456.

### *Service, § 31 — Powers of Commission — Adequacy of service.*

7. The Commission is the proper regulatory body to determine if the service rendered by an existing telephone company is ample and adequate to meet the demands of the body public as to the field in question when another company asks authority to furnish service, p. 456.

### *Commissions, § 39 — Jurisdiction — Effect of franchise expiration.*

8. The Commission's jurisdiction to regulate the service and rates of a telephone company continues so long as the company or utility continues to render service as a public utility, irrespective of whether or not the utility franchise has expired, p. 456.

### *Service, § 215 — Commission jurisdiction — Abandonment — Authorization.*

9. Any utility which is subject to the jurisdiction of the Commission cannot, as a matter of law, abandon its service in a given field unless authorized so to do by the Commission, p. 456.

### *Monopoly and competition, § 8 — Commission jurisdiction.*

10. The Commission is solely vested with the authority and the right to determine if a certificate of public convenience and necessity should be granted to any applicant, and since the Commission is the only quasi judicial body that has that right, it should be the only governing power which should determine whether or not the services of the utility in the field in question are any longer needed, p. 458.

### *Monopoly and competition, § 8 — Commission jurisdiction — Effect of judicial decision.*

11. The Commission, although bound by rulings of the supreme court as well as the general regulatory act which created it, is vested with discretion to determine whether authority sought by a telephone company to construct and operate a plant should be granted where a decree of the supreme court requires the present utility to remove its property from the municipality because of the absence of a franchise, the court retaining jurisdiction to decrease or increase the length of time as specified in the decree for removal, p. 458.

### *Procedure, § 36 — Res adjudicata — Stare decisis — Commission proceeding.*

12. The Commission does not apply the principles of res adjudicata and stare decisis as they have been enforced in the courts of law, but where a particular situation has previously been presented to the Commission and conclusions announced with respect thereto, the views so announced are controlling unless conditions are made to appear in a subsequent presentation which justifies or requires a different conclusion, p. 459.

[March 9, 1937.]

**A**PPPLICATION for authority to issue securities and for a certificate of convenience and necessity authorizing the construction, maintenance, and operation of a telephone system or exchange in a city; application denied.

## MISSOURI PUBLIC SERVICE COMMISSION

ANDERSON, Commissioner: This matter is before the Commission by an application filed on behalf of the Home Telephone Company, Inc., which was incorporated and is a telephone corporation organized and existing under, and by virtue of, the laws of Missouri, and particularly Art. 6, Chap. 32, Rev. Stats. of Missouri, 1929, and all amendments thereto, whose office and principal place of business is located at Lebanon, Missouri. Said applicant was incorporated for the purpose of constructing, operating, and maintaining telephone plants, or exchanges, and lines of telephone within this state. The applicant under the present application is requesting the right for the authorization of the issuance by the board of directors of the applicant company to the incorporators thereof of 70 shares of stock of said corporation, as specified in the articles of association of said company, also authorization of the sale and issuance by the board of directors of said applicant company of 630 additional shares of common stock in said company, or such portion thereof, as in the opinion of said board of directors, shall be necessary to construct and operate a telephone system in the city of Lebanon. The sale of the shares of said common stock is to be at the price of \$100 per share without any commission for the sale of the same, and the applicant further moves the Commission to grant it a certificate of convenience and necessity authorizing it to construct, maintain, and operate in the city of Lebanon, Missouri, and through, over, and under the public streets, alleys, avenues, and thoroughfares thereof a telephone system or ex-

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change, together with all the poles, wires, conduits, and other appliances necessary for the purpose of furnishing and supplying telephone service, local, rural, and long distance, under the direction of this Commission as said Commission may deem advisable according to law.

This cause was set for a hearing by the Commission at its hearing room in Jefferson City, Missouri, on the 24th day of August, 1936, after the interested parties had been notified of the time and place of said hearing. On that date there was a hearing had before two members of the Commission. The appearance on behalf of the applicant company was by counsel and certain officials of that company. The interveners, the Missouri Standard Telephone Company and the city of Lebanon, were represented by counsel, and other interveners who were taxpayers appeared in person.

Previous to the introduction of any testimony in this cause there was an application filed on behalf of the Missouri Standard Telephone Company, a corporation, requesting authority to intervene. That company was permitted to intervene in the hearing in this cause. Then it filed an intervening petition, which said intervening petition prayed that the relief sought under the application be denied and that the same be dismissed. There was also a motion filed on behalf of the intervener asking that said application be dismissed, because the subject matter in said application had been disposed of by the Commission in a former hearing in Case No. 9021 (16 P.U.R.(N.S.) 413) in which an application of the applicant company

## RE HOME TELEPHONE CO., INC.

was denied, and in view of the Commission's ruling and finding in that cause of action, that the doctrine of *res adjudicata* applied in the instant case, and that the Commission should be bound by the rule of *stare decisis* as the issues raised by the instant application had been considered and decided by it in the former application, and should be regarded as settled, which motion was taken under advisement by the Commission.

There was also an application to intervene filed on behalf of the mayor of the city of Lebanon, which intervention was granted by the Commission, and a petition to intervene was filed on behalf of certain subscribers and taxpayers of the city of Lebanon, Missouri, which intervention was granted by the Commission.

The evidence in this cause was to the effect that the applicant company was duly incorporated and existing according to law, and under the articles of incorporation its principal office and place of business was at Lebanon, Missouri. The articles of association further provided, that the applicant company is organized for the purposes of constructing, maintaining, and operating telephone plants or exchanges and lines of telephone within the state of Missouri. It is also authorized to issue 700 shares of capital stock, without nominal or par value, of which 70 shares had been subscribed and the amount paid therefor was \$7,000, which amount the applicant company wishes to be authorized to commence its business. Those shares of stock are in the possession and custody of the board of directors. The board of directors is to consist of six shareholders,

all of whom reside at Lebanon, Missouri. A certified copy of the articles of association of the applicant company was offered in evidence and marked Exhibit 1, and there was also offered in evidence and marked Exhibit 3 a franchise which had been granted by the city of Lebanon to the Home Telephone Company on May 4, 1936, which was Ordinance No. 916. Under the terms and condition of said ordinance, the applicant company, its successors, and assigns, was granted the right, privilege, and authority to construct, maintain, and operate in the city of Lebanon, Missouri, a telephone exchange for the purpose of furnishing and supplying telephone service, local, rural, and long distance, for a period of twenty years from the date of acceptance of said ordinance. The applicant company under the terms and conditions of the ordinance is to pay annually to the city of Lebanon the sum of \$300 per year, payable quarterly in advance, and certain other concessions were granted to the city of Lebanon. The first quarter of the franchise tax was paid on the date that the ordinance was enacted by the city council of Lebanon, Missouri, and acceptance of the same was received by the city clerk of that city from the applicant company. There was offered in evidence Exhibit No. 6 which was a decree of the supreme court of Missouri entered on June 19, 1935, *State ex inf. McKittrick ex rel. Lebanon v. Missouri Standard Teleph. Co.* (1935) 337 Mo. 642, 85 S. W. (2d) 613, which cause of action was a *quo warranto* proceeding instituted by the attorney general of this state at the relation of the city of Lebanon, Mis-

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souri. Under the ruling of that august tribunal, the respondent, the Missouri Standard Telephone Company, a corporation, was required by ouster from the use of the streets, avenues, and alleys of the city of Lebanon to maintain and operate its telephone exchange in that city, or in substance was required to remove its poles, wires, piers, abutments, conduits, and other equipment from the streets and alleys of the city of Lebanon, since the respondent company had not obtained a franchise from the said city. There was a motion filed on behalf of the respondent company, requesting an increase in the period of time fixed for the removal of respondent's property from the city of Lebanon, Missouri, and the time was extended by the supreme court until December 19, 1936, which was the last extension granted by that court in said matter previous to the hearing in this cause, or in substance, the effective date of the order of the ouster was extended until the aforesaid mentioned date.

The former opinion of this Commission in Case No. 9021, *supra*, was offered in evidence, and marked Exhibit 2, which report and order denied an application filed on behalf of the applicant company. The franchise that was granted the applicant company in the former proceeding was for a period of ten years, said franchise being granted on the 6th day of November, 1933. A portion or part of the transcript in the former case was offered in evidence by the applicant in this matter, the same being the examination in chief and the redirect examination of the applicant's witnesses.

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There was also proof to the effect, as to the cost of the construction of a telephone exchange in the city of Lebanon, which would be a comparable exchange to the present exchange of the intervening company. The evidence concerning the same was given by J. C. McKee, who lives at Bolivar, Missouri, and has been in the telephone business for several years. His testimony was to the effect that a telephone system or exchange could be constructed at the city of Lebanon for \$65,000 and that the same would be a more modern and up-to-date telephone system than the one that is maintained in that city by the intervening company. Concerning the cost of the construction of a telephone exchange at that point, there was offered by the applicant company the evidence of J. D. Boulward, who estimated that the telephone exchange could be constructed as proposed by the applicant company at the city of Lebanon for approximately \$67,000.

There was proof to the effect that the applicant company could dispose of the additional shares of stock at \$100 per share, or in substance the applicant company would be able to raise \$70,000 for the construction of the necessary telephone exchange at Lebanon, Missouri, if a certificate of convenience and necessity is granted to that company by this Commission.

There was additional evidence offered concerning the cost of the telephone exchange by R. E. Duffy. His testimony was to the effect that the average telephone exchange could be amortized over a period of approximately twenty years, or in substance he testified to the effect that the life of a telephone system for the purpose



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of depreciation figures on about a 20-year basis provided there is a sinking fund to replace the telephone system.

The evidence on behalf of the intervener, the Missouri Standard Telephone Company, was to the effect that that company owns and operates other telephone exchanges in this state besides the one at Lebanon, Missouri. The other telephone exchanges are located in the same territory that Lebanon is in. The gross revenue that is received from the Lebanon exchange comprises approximately 40 per cent of the gross revenue of all the telephone exchanges in this state operated and owned by the intervener. Since the gross revenue from that exchange amounts to 40 per cent of the total gross revenue of all the telephone exchanges in this state of the intervener, if the intervener was forced to abandon or discontinue the exchange at Lebanon, it would greatly affect its telephone operations in this state as it claimed that some of the other exchanges are being operated at a loss.

J. E. Albert, who is vice president of the intervener company, testified to the effect that that company has outstanding stock and bonds the value of approximately \$2,696,900 of which \$2,225,400 is held by various bondholders in about 35 or 40 states. In Missouri there are 119 bondholders holding securities of the intervener in the amount of \$167,500, or in substance it is the contention of the intervening company that if it has to abandon the Lebanon exchange that it will not be able to meet its fixed charges. Also that it has operated its properties in this state upon the basis that it had continuing franchise

rights for each of the respective exchanges, and that the Commission has failed to allow a depreciation reserve or retirement reserve by which the intervener would be able to amortize out the value of the used and useful property less the junk value at the expiration of the various franchise dates. That company further claimed that if it became necessary for it to discontinue its telephone exchange at Lebanon, that it would mean an increase in telephone rates because the operating companies would have to have a retirement reserve so the properties could be amortized out when the franchises had expired.

There was a meeting by a representative of the intervening company and certain stockholders of the applicant company. At that time there was a discussion as to the value of the intervener telephone exchange at Lebanon, and the controversy arose between the representative of the intervener and said stockholders of the applicant company, as to how much they would be willing to pay for that exchange. The representative of the intervening company testified that an offer of \$25,000 was made by the applicant, while the applicant claimed that they made an offer of \$35,000 which was denied by the representative of the intervening company.

J. E. Millsap, who is the mayor of Lebanon at the present time, testified on behalf of the intervener. His testimony was to the effect that at the council meeting on May 4, 1936, which was the evening that the incoming mayor should have been sworn in, and also the new council members, that a representative appeared on behalf of the Home Telephone Com-

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pany, and asked the council to grant them a longer franchise, and to strike out part of § 2 in the old franchise, which was pertaining to the supervision of the board of aldermen. This witness further testified that Jean Paul Bradshaw stated that he wanted the new ordinance to use in the filing of a motion for a rehearing in the former case, as the Commission had denied an application to the applicant company on the ground that three years of the former franchise had expired, and that the same provided for regulation and supervision of the proposed telephone exchange at Lebanon of the applicant by the board of aldermen. He further stated that Mr. Bradshaw said that he would have to have the franchise within the next four days in order to use the same in the filing of a motion for rehearing before the Commission. This witness testified that it had been the custom for years, that at the last meeting of the old council that no business was transacted and that it was customary for the incoming mayor and the new councilmen to be sworn in and for the old board to step out. After some discussion by the previous mayor and the old board of aldermen, Ordinance No. 916, which granted the Home Telephone Company of Missouri, its successors and assigns, a franchise for a period of twenty years, was passed by the old council and on that date the applicant company accepted the ordinance and paid a quarterly fee in the amount of \$75 as under the terms and conditions of said franchise the consideration was \$300 per year to be paid in quarterly payments, receipt of which was accepted by the city clerk of the

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city of Lebanon. This witness further testified that the telephone service that was being given by the intervening company in the city of Lebanon was satisfactory service, and that he had not heard any complaint on the same.

A representative of the applicant company testified on its behalf to the effect that he obtained a franchise from the city of Lebanon for the applicant company for a period of twenty years, but it was his contention that it was not obtained solely for the purpose of filing a motion for rehearing, but he admitted that the same was used and made an exhibit in the motion for rehearing that was filed in the former cause of action, which motion was denied and overruled by the Commission, from which ruling the applicant did not apply to the circuit court of Cole county for a writ of certiorari or review, for the purpose of having the reasonableness or lawfulness of said order or decision of the Commission inquired into or determined by the circuit court. He also claimed that the franchise contract upon which they based the present cause of action was obtained in good faith from the old city council, but he admitted on cross-examination that it had been a practice for years for the old city council on their last meeting date to only swear in the mayor and the new board of aldermen, and it was unusual for the old council to transact any business. He admitted that the service that was being rendered by the intervener was ample and adequate to meet the demands of the body public at Lebanon and the rural district adjacent to that point. He also stated that the applicant company

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had been put to considerable expense in the payment of the franchise tax under the former franchise and the payment of the franchise tax under the franchise that was for a period of twenty years, and also other additional expense which was the hearing of the former application.

In this cause of action we reach the vital or pertinent question, which is whether or not the application of the applicant should be granted. If the same were granted as requested by the applicant company the Commission would issue a certificate of convenience and necessity authorizing said applicant to construct, maintain, and operate in the city of Lebanon in Laclede county, Missouri, through, over, and under the public streets, alleys, and thoroughfares thereof a telephone system or exchange together with all the poles, wires, conduits, or other appliances necessary for the purpose of furnishing and supplying telephone service both local, rural, and long distance which telephone service would be rendered under the direction of this Commission, also authorize the issuance by the board of directors of the applicant company to its incorporators 70 shares of stock of said corporation, as specified in the articles of association of that company and authorize the issuance and sale by the board of directors of the applicant company of 630 additional shares of stock in said corporation, or such a portion thereof as in the opinion or discretion of the board of directors would be necessary to construct and operate a telephone system in the city of Lebanon, said shares of stock to be sold at \$100 per share.

[1-4] In disposing of this cause

of action it is necessary that the Commission take into consideration the fact that it is a creature of statute and it would, therefore, necessarily follow that it travel only in a statutory orbit, or in substance, it is necessary for the Commission to consider said portions or parts of the General Regulatory Act as under § 96 of that act or § 5217 of the Rev. Stats. of Missouri 1929, it is mandatory that any telephone corporation or telegraph corporation which has been formed after the enactment of said regulatory act, before it begins construction of its telephone line to first obtain the permission and approval of the Commission, which would be the granting by the Commission of a certificate of public convenience and necessity. Under the phraseology of that section it is necessary for the Commission to have a hearing, and then determine whether or not a certificate should be granted. The Commission as a matter of law should take into consideration the telephone service that is being rendered at the present time if there is a telephone company serving the field in question. It should also duly consider the responsibility of the applicant to render the service in the field that it desires to serve and whether or not the consent of the municipal authorities has been properly obtained. It certainly is within the province of the Commission to judge the qualification of the applicant to render the utility service and in determining that question the Commission is justified in taking into account, and should take into account, all of the facts and circumstances which may indicate whether or not the applicant's purpose is primarily to serve the public as a

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utility or to serve private interest. Bearing on the same there was evidence to the effect that the applicant proposes to enter the field in question for private gain and speculation rather than to serve the public interest, to which acts the Commission cannot afford to lend its countenance as to do so would be in direct violation of the cardinal principles of regulation as set out in the General Regulatory Act.

[5-9] Relative to the granting of the franchise of the applicant there was proof to the effect that the same was obtained to be used only for the purpose of a motion for rehearing in Case No. 9021, *supra*, because at that time there was a motion for a rehearing pending before the Commission in that cause of action. The applicant company filed an application for a rehearing and permission to introduce additional evidence with the Commission on May 8, 1936. It was alleged in that application that the applicant had been granted by the city of Lebanon a telephone franchise for a period of twenty years from May 4, 1936, the same being Ordinance No. 916, which accompanied the motion requesting the Commission to grant the applicant permission to introduce additional evidence, or in substance the later franchise was used by the applicant company in the motion for a rehearing pending before the Commission in Case No. 9021, *supra*, as was shown by the evidence of the protestant in this cause of action, or in substance the proof of the protestant was to the effect that the later franchise was obtained from the city of Lebanon through the channels of misrepresentation, because it was obtained solely for the purpose to be

used in the motion for rehearing pending before the Commission in Case No. 9021, *supra*.

Bearing further on this phase of the instant case there was proof to the effect that a representative of the applicant company stated that it was necessary to obtain an additional franchise within four days, also that the retiring council and mayor should grant the same, while it was customary at the last meeting of the retiring council to only dispose of matters that had been pending before them, and for the new council and mayor to be sworn in. Under the proof made by the protestant it is conclusive that the applicant company filed a motion asking permission to introduce additional testimony before the Commission, which motion had accompanying it the 20-year franchise, or Ordinance No. 916. Relative to the obtaining of the 20-year franchise by the applicant company from the city, it is evident in view of the proof made concerning the same that it was unfairly obtained, as far as the same being used in any proceeding by the applicant company otherwise than in Case No. 9021, *supra*. If the Commission as a matter of law is to be supreme in the regulation of utility business in this state, then it necessarily follows that it has the power and authority to pass upon the fitness and qualifications of the applicant company in order to determine whether or not a certificate of convenience and necessity should be granted as requested by the applicant company. While it is conclusive that it has no control over a municipality, but it does have the power to refuse to become a party to a wrongdoing by refusing to ratify and

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approve such wrongdoings, or in substance the approval of the granting of the franchise offered in evidence by the applicant company. There was no contention made by the applicant company that the service rendered by the Missouri Standard Telephone Company was not adequate and ample. It is evident that this Commission is the proper regulatory body to determine if the service rendered by that company is ample and adequate to meet the demands of the body public as to the field in question because under the General Regulatory Act that power and authority is solely vested in this Commission. Section 3, and the first paragraph of § 16 and Par. 6 of that section are as follows:

"Section 3. Commission established. A Public Service Commission is hereby created and established, which said Public Service Commission shall be vested with and possessed of the powers and duties in this act (chapter) specified, and also all powers necessary or proper to enable it to carry out fully and effectually all the purposes of this act (chapter)." Laws 1913, p. 561. (Rev. Stats. Mo. 1929, § 5123.)

"Section 16. Jurisdiction of Commission. The jurisdiction, supervision, powers, and duties of the Public Service Commission herein created and established shall extend under this act (chapter):

"Paragraph 6. To all telephone lines, as above defined, and all telegraph lines, as above defined, and to every telephone company, and to every telegraph company, so far as said telephone and telegraph lines are and lie, and so far as said telephone companies and said telegraph companies

conduct and operate such line or lines, respectively, within this state." Laws 1913, p. 565. (Rev. Stats. Mo. 1929, § 5136.)

Under those provisos of the aforesaid mentioned fiat the service and rates of telephone utilities are subject to the jurisdiction of the Commission, and that the Commission's jurisdiction to regulate the service and the rates continue so long as the company or utility continues to render service as a public utility irrespective of whether or not the utility franchise has expired. The regulation of utilities is one form of police power that is inherent to the sovereign state. Since the general assembly has passed the aforesaid mentioned legislative enactments that inherent power of the state to regulate the service and rates of the utilities therefore has been invested in the creature of the state that was created by the General Regulatory Act, which is the Public Service Commission. The state as a sovereign power is possessed of police powers which are divisible in two classes, first, such rights of internal regulations of its affairs as do not touch the vital question of health, morals, or property of the people. Those the state may part with because their retention is not indispensable to the preservation of society. Second, the powers of the state government which are indispensable for the regulation of public health, welfare, and property rights of the people, which powers that the state cannot strip itself of. For to do so would render it incapable of carrying out its necessary sovereign functions. Since the power to regulate a utility as to service and rates rightfully and justly falls in the class of the

## MISSOURI PUBLIC SERVICE COMMISSION

indispensable powers of the state, and in view of the fact that that power has been delegated and designated to this Commission by a legislative enactment it, therefore, follows that any utility which is subject to the jurisdiction of the Commission as a matter of law could not abandon its service in a given field unless authorized so to do by the Commission. This cardinal principle of regulation has been repeatedly held to be true by the courts. *Southwest Missouri R. Co. v. Public Service Commission*, 281 Mo. 52, P.U.R.1920D, 351, 219 S. W. 380; *State ex rel. Public Service Commission v. Missouri S. R. Co.* 279 Mo. 455, P.U.R.1919F, 575, 214 S. W. 381; *State ex rel. Carthage v. Public Service Commission*, 303 Mo. 505, P.U.R.1924E, 612, 260 S. W. 973; *Cape Girardeau v. St. Louis-S. F. R. Co.* (1924) 305 Mo. 590, 267 S. W. 601, 36 A.L.R. 1488.

The power of the Public Service Commission is one form of police power of the state and under the aforesaid mentioned sections of the General Regulatory Act it is evident that the general assembly by said enactments has vested the state regulatory body with that form of the police power.

[10] Also under the General Regulatory Act it is obligatory upon any telephone corporation to acquire the permission and approval of the Commission and its certificate of public convenience and necessity before beginning construction of said telephone system in any municipality. That is provided in § 96 of the Regulatory Enactments which is as follows:

"Section 96. Franchise and Privi-

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leges. No telegraph corporation, or telephone corporation, hereafter formed shall begin construction of its telegraph line or telephone line without first having obtained the permission and approval of the Commission, and its certificate of public convenience and necessity, after a hearing had upon such notice as the Commission may prescribe. Before any such certificate shall be issued there must be filed in the office of the Commission by the applicant therefor a verified statement showing that the required consent of the proper municipal authorities has been obtained. The Commission may by its order impose such condition or conditions as it may deem reasonable and necessary. Unless exercised within a period of two years from the grant thereof authority conferred by such certificate of convenience and necessity issued by the Commission shall be null and void." Laws 1913, p. 629. (Rev. Stats. Mo. 1929, § 5217.)

Under this section the Public Service Commission is solely vested with the authority and the right to determine if a certificate of public convenience and necessity should be granted to any applicant. Since the Commission is the only quasi judicial body that has that right it is beyond question that as a matter of law it should be the only governing power which should determine whether or not the services of the utility in the field in question were any longer needed.

[11] It is also argued by the protestant, the Missouri Standard Telephone Company, that the refusal of the authority sought by the applicant company would not deprive Lebanon



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of telephone service. In support of this proposition it pointed out that by the decree in the ouster proceeding of the supreme court, that there was a provision in said decree to the effect that the court retained jurisdiction of the cause to the effect that it would entertain a motion filed on behalf of the city of Lebanon, or the protesting company, within a specified time in said decree to the effect that the court might decrease or increase the length of time as specified in said decree for the removal of the respondent's property from the streets and alleys of the city of Lebanon. Evidently it would be true that the discretion retained by that august tribunal in its decree would be exercised for and not against the public interest in aid of continuing adequate telephone service.

In support of this proposition the intervener maintained that the judgment of this Commission in determining whether or not the authority sought should be granted would be unhampered by the judgment in the ouster proceeding in view of the ample and comprehensive powers that are conferred upon it as a matter of law.

As a matter of law it is beyond question that this Commission is bound by the rulings of the supreme court of this state as well as the General Regulatory Act which created it, but in the instant case it is discretionary with the Commission to determine if the authority sought by the applicant should be granted. For the Commission to properly do so it is necessary for the Commission to find if the facts presented in this cause of action warrant the granting of the

certificate as requested by the applicant company.

[12] In the motion filed to dismiss on behalf of the intervener the doctrine of *res adjudicata* and *stare decisis* was raised or in substance the intervener maintained that in view of the Commission's finding in the former case that a certificate of convenience and necessity should not be granted to the applicant company, that it was bound by that finding. Obviously it is true the Commission has never strictly applied the principles of *res adjudicata* and *stare decisis* as they have been enforced in the courts of law, but it has uniformly held that where a particular situation has previously been presented to the Commission, and conclusions announced with respect thereto, the views so announced are controlling unless conditions are made to appear in a subsequent presentation which justifies or requires a different conclusion, and therefore the Commission deems it advisable to deny the motion to dismiss that was filed on behalf of the intervener.

Another point raised by the intervener was that if a utility was required to cease operations and remove its existing plant from the streets and alleys of a municipality at the expiration of the franchise granted to it by the municipality, that the Commission would be required as a matter of law to grant the utility the right to establish a retirement reserve adequate to amortize all or at least a very great portion of its plant during the life or the remaining life of the franchise which necessarily would cause a tremendous increase in the operating costs or operating expenses of the

## MISSOURI PUBLIC SERVICE COMMISSION

existing utilities, because the Commission had determined depreciation annuities upon the basis that the utility was to remain in the field in question indefinitely, and that the depreciation allowances heretofore ascertained by the Commission were only such amounts as to enable the utility to maintain its plant in first-class condition so as it could economically and efficiently serve the public.

Another point raised by the intervener, the Missouri Standard Telephone Company, was that it operates several other exchanges in this state, but that 40 per cent of its revenue is derived from the operations of the telephone exchange at Lebanon, and if it is forced to abandon the exchange at Lebanon it would necessarily follow that the other exchanges would be greatly affected by the same from a financial standpoint, and if the other exchanges continued to function as public utilities it would mean an increase in rates, but since that point is not directly before the Commission in this cause it is not necessary for it to pass upon the same. Another phase raised by the intervener was to the effect that the applicant company did not propose to construct and maintain a telephone system

which would serve the rural district that is served by the intervener as the certificate sought by the applicant is only for the construction and operation of a telephone system only in the city of Lebanon through, over, and under the public streets, alleys, avenues, and thoroughfares thereof, or in substance no authority has been obtained from the county court to construct poles along the highways in Laclede county, which telephone service at the present time is rendered by the intervener as a portion or part of its telephone system at Lebanon.

From the conclusions heretofore reached the Commission finds that a certificate of convenience and necessity should not be granted the applicant as prayed and since the Commission does not deem it advisable to grant a certificate as requested, and since the other requests of the applicant depend primarily upon the granting of the same, it would not be advisable to grant those requests, and an order expressing the views herein will accordingly be so issued.

Hargus, Chairman, Nortoni and Ferguson, Commissioners, concur. Boyer, Commissioner, concurs in separate opinion.

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## MINNESOTA RAILROAD AND WAREHOUSE COMMISSION

### Re Northwestern Bell Telephone Company et al.

[M-2312.]

*Accounting, § 4 — Commission jurisdiction.*

1. The Constitution and statutes of the state confer upon the Commission

## RE NORTHWESTERN BELL TELEPHONE CO.

full authority to exercise its own judgment in prescribing what accounts, records, and service classifications are necessary in order effectively to regulate rates and charges for intrastate services, p. 462.

### *Accounting, § 6 — Uniform rules and regulations — Telephone companies — Federal requirements.*

2. Federal statutes and rules governing uniform accounts for telephone companies do not forbid the companies from keeping their records and accounts different or in more detail than is provided for in the accounts prescribed by the Federal Commissions, so as to prevent compliance with orders of a state Commission requiring the keeping of records and accounts, p. 462.

### *Accounting, § 3 — Powers of Federal Commissions — Telephone companies — Compliance with state Commission requirements.*

3. The provisions contained in the Communications Act of 1934 and in orders of the Interstate Commerce Commission and the Federal Communications Commission make it clear that neither of the aforesaid Commissions is authorized by law to prohibit telephone companies from maintaining records and supplying from said records such information as state Commissions may, in their judgment, deem necessary in the regulation of intrastate rates and service, p. 462.

[January 23, 1937.]

**R**EQUEST of Commission directing telephone companies to establish and maintain certain records and to make certain revised reports; on protest against requirement, objections dismissed and accounting order issued.

APPEARANCES: F. Randall, Vice President and General Counsel, Omaha, Nebraska, and Tracy J. Peycke, General Attorney, Omaha, Nebraska, for the Northwestern Bell Telephone Company; C. B. Randall, General Counsel, St. Paul, for the Tri-State Telephone and Telegraph Company; L. R. Bitney, Statistician, and A. N. Fencher, Supervisor of Telephones, for the Commission.

By the COMMISSION: In a letter dated August 9, 1935, the Northwestern Bell Telephone Company and its subsidiary, The Tri-State Telephone and Telegraph Company, were requested by the Commission to observe and comply with the following requests:

"The rules, regulations, and accounts prescribed in the I.C.C. Classification of Accounts effective January 1, 1933, differ materially from the accounts prescribed in the uniform system of accounts effective January 1, 1913. They likewise differ from the proposed rules, regulations, and accounts prescribed by the Federal Communications Commission, to be made effective January 1, 1936.

"Because of the changes made in the latter two classifications and to avoid confusion and delay in future rate case proceedings, as in the St. Paul Case, and to preserve comparisons with past years, the Commission has decided and the Northwestern Bell Telephone Company and the Tri-State Telephone and Telegraph Com-

## MINNESOTA RAILROAD AND WAREHOUSE COMMISSION

pany are hereby required to establish and maintain a set of records, in which the postings to investment, operating revenues, operating expenses, and income accounts, shall be made in accordance with the rules, regulations, and accounts prescribed in the I.C.C. Classification of Accounts effective January 1, 1913. This will necessitate a change in accordance with the 1913 Classification of Accounts for each exchange for the years 1933 and 1934, and the filing of revised annual reports for those years. You are requested to furnish this information as soon as possible for the Minneapolis exchange, and for other exchanges in the state as soon as convenient.

"The Commission also desires and you are hereby required to prepare and file a statement showing by primary accounts the investment, operating revenues, operating expenses, uncollectible revenues, taxes, and rentals which for the calendar years 1932, 1933, and 1934, were attributable to St. Paul-Minneapolis intercity message and private line services, which prior to 1932 were considered and treated as a part of the exchange service operations.

"In connection thereto you are also requested to state to what extent, if any, the methods used in assigning investment, revenues, and expenses to intercity services differed from the printed formula put out by the supervisor of telephones, January 10, 1921, prescribing the methods to be used and the methods which the company has used since that time in the separation of investment, revenues, expenses, and income deductions as be-

tween local exchanges, toll, and farm line switching services.

"The substance of this request is that you prepare and file a statement which will show the investment, revenues, expenses, etc., which in the years 1932 and 1934 were included as a part of the toll service operations, in reports made to this Commission, which in years prior thereto had been treated as a part and included in Minneapolis exchange service operations."

Protesting that those requirements were imposed upon the companies without any previous notice and without any opportunity to be heard, counsel for the companies requested a hearing in the matter which was granted.

[1-3] Compliance with the Commission's request was objected to on the grounds that it would greatly increase the accounting expense and that the requirements of the Federal system of accounts due to the Federal Statutes under which they are laid down are mandatory; that said statutes and rules forbid the companies from keeping accounts and memoranda other than those specified in the Federal accounting classification. It was admitted that while the matters specified in the Commission's request might be the very things they would do on their own motion if permitted to do so, the statutes of the United States forbid them from doing so.

The Constitution and statutes of Minnesota confer upon the Minnesota Railroad and Warehouse Commission full authority to exercise its own judgment in prescribing what accounts, records, and service classification are needed and necessary in order to effec-

## RE NORTHWESTERN BELL TELEPHONE CO.

tively regulate rates and charges for intrastate services.

Contention of counsel that the telephone companies are specifically forbidden by Federal statutes and the accounting rules and regulations of Federal Commissions from keeping their records and accounts different or in more detail than is provided for in the accounts prescribed by the Federal Commissions or that they will be subjected to penalties if they violate such orders is not in accordance with the provisions contained in such orders.

Paragraph six, page VI of the Interstate Commerce Commission's order prescribing a uniform system of accounts effective January 1, 1933, provides:

"It is *further ordered*, that any such carrier or receiver or operating trustee of any such carrier, may subdivide the accounts hereby prescribed to the extent necessary to secure the information required in the prescribed reports to Commissions having jurisdiction."

Paragraph 14, page IV of the Uniform System of Accounts for Telephone companies prescribed by the Federal Communications Commission to become effective January 1, 1936, provides:

"It is *further ordered*, that nothing herein contained shall be construed as prohibiting or excusing any such carrier or receiver or trustee of any such carrier, from subdividing the accounts hereby prescribed in a manner ordered by any state Commission having jurisdiction or to the extent necessary to secure the information required in the prescribed reports to such Commission."

The Communications Act of 1934 is more specific as to the limitation of the duties and powers of the Federal Communications Commission where there may be conflict with state jurisdiction.

The Communications Act of 1934 specifically exempts from the jurisdiction of the Federal Communications Commission all purely intrastate functions of the telephone utilities. Section 2b (47 USCA, § 152) provides:

"Subject to the provisions of § 301, nothing in this act (chapter) shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service of any carrier, or (2) any carrier engaged in interstate or foreign communication solely through physical connection with the facilities of another carrier not directly or indirectly controlling or controlled by, or under direct or indirect common control with, such carrier; except that §§ 201 to 205 of this act (chapter), both inclusive, shall, except as otherwise provided therein, apply to carriers described in clause (2)."

Section 213, which relates to the valuation of carrier property, provides in paragraph (h) thereof: "Nothing in this section shall impair or diminish the powers of any state Commission."

Section 220, in its paragraphs (h), (i), and (j), directs specific attention to the harmonizing of state and Federal accounting regulations and the necessity for legislation to define fur-

## MINNESOTA RAILROAD AND WAREHOUSE COMMISSION

ther and harmonize the powers of the Federal and the state Commissions with respect to accounting or depreciation matters.

Section 221 (a), relating to consolidations and acquisitions of control of properties, closes with the sentence: "Nothing in this subsection shall be construed as in anywise limiting or restricting the powers of the several states to control and regulate telephone companies."

Section 221 (b) provides that:

"Nothing in this act (chapter) shall be construed to apply, or to give the Commission jurisdiction, with respect to charges, classifications, practices, services, facilities, or regulations for or in connection with wire telephone exchange service, even though a portion of such exchange service constitutes interstate or foreign communication, in any case where such matters are subject to regulation by a state Commission or by local governmental authority." (47 USCA, § 221b.)

The foregoing provisions contained in the Communications Act of 1934 and in orders of both the Interstate Commerce Commission and the Federal Communications Commission make it clear that neither of the aforesaid Commissions is authorized by law to prohibit telephone companies from maintaining records and supplying from said records such information as state Commissions may in

their judgment deem necessary in the regulation of intrastate rates and services.

### *St. Paul-Minneapolis Intercity Message and Private Line Services*

St. Paul with a population of 271,000 and Minneapolis with a population of 461,000 are adjoining cities. From an engineering or operating standpoint the telephone facilities situated within the incorporated limits of both cities are in all respects similar to one telephone exchange, in that each of the 9 central offices in St. Paul is connected with each of the 16 central offices of the Northwestern Bell Company in Minneapolis, by a group of trunk line circuits. These circuits are used mainly for the transmission of intercity calls between subscribers in the two cities and to supply private line services. Subscribers having Midway, Nestor, Emerson, and DeSoto telephones are permitted to call Minneapolis subscribers free of charge and the number granted this free service constitutes approximately 30 per cent of the total St. Paul subscribers served. For like service, the subscribers having direct connection at all other exchanges pay a message rate of 10 cents for five minutes and 5 cents for each additional three minutes.

The number of intercity calls and the revenue derived from said calls and from private line services were as follows:

INTERCITY MESSAGES				
	No. Calls	Amount	Average Per Call	Private Line Service Revenues
1931 .....	1,635,835	\$186,805	\$.114	\$56,778
1932 .....	1,422,669	163,104	.115	56,778
1933 .....	1,363,901	147,086	.108	49,156



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The total revenue derived from all intercity calls originating in both cities is divided equally between the two companies.

In 1917 the senate of the state of Minnesota adopted a resolution requiring this Commission to evaluate the properties of The Tri-State and Northwestern companies devoted to the handling of long-distance toll services within the state, and appropriated \$50,000 for that purpose.

In order to ascertain the cost of performing toll service it was necessary to formulate and adopt methods for use in the separation of investment, operating revenues, and operating expenses and other income deductions as between exchange and toll service. The Northwestern and Tri-State Telephone companies organized a committee of engineering and accounting experts who cooperated with the Commission's supervisor of telephones in the preparation of the rules and regulations to be used for that purpose.

The methods submitted by the committee were approved, printed, and distributed by the Commission in a circular dated January 10, 1921. (Biennial Report, years 1919-1920, pp. 276-340.) The methods so designed and adopted were to be used in the separation of investment, operating revenues, operating expenses, and income as between exchange and toll services for the purpose of making annual reports for each exchange property and also for use in rate case proceedings. Among other things, the formula provides that for the purpose of the study then being made, the St. Paul-Minneapolis intercity message service would be allocated to

exchange, and in annual reports filed from 1922 to and including 1930 the intercity business in question was treated as a part of the St. Paul exchange service operations. Without consulting or securing approval of the Commission in the matter the two companies reversed the accounting process by transferring the investment, revenues, and expenses attributable to this intercity service to toll service operations. Evidence in the St. Paul Rate Case proceeding shows that in making this transfer the company did not segregate the exchange investment, operating expenses, and other income charges assigned to toll services during the three years in question as between amounts attributable to long-distance toll and to intercity services.

Evidence in the St. Paul Rate Case shows that the exchange facilities used and the kind and character of services rendered in furnishing intercity services, for which a message rate is charged, are in every respect similar to the facilities used and character of services rendered in the furnishing of free intercity service to approximately 30 per cent of the company's St. Paul subscribers situated in what is known as the "free zone." Except for trunk line circuits, identical exchange facilities and services are involved in furnishing local exchange services. All the facilities involved are situated within the St. Paul exchange area.

The Commission in its decision in the St. Paul exchange rate case dated March 31, 1936, found that for rate-making purposes, the investment, operating revenues, and operating costs attaching to the St. Paul-Minneapolis

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intercity message and private line services, should be classified and treated as a part of the exchange service operations.

It is therefore *ordered*, that the Northwestern Bell Telephone Company and The Tri-State Telephone and Telegraph Company be and they are hereby required to prepare and file for each of the years 1931, 1932, 1933, 1934, 1935, and currently each year thereafter, statements which will show by prescribed primary accounts, the investment, operating revenues, operating expenses, rentals, taxes, and any other costs attaching to and involved in the operation of message and private line services between subscribers situated in the cities of St. Paul and Minneapolis.

It is *further ordered*, that the methods to be used in determining the amount of said investment, revenues, and operating costs shall conform with those approved by the Commission and used by the companies in the separation of toll and exchange properties, revenues, and expenses herein referred to.

It is *further ordered*, that beginning January 1, 1937, and until otherwise ordered, the investment, operating revenues, and operating costs attributable to the furnishing of said

intercity and private line services between any and all contiguous exchanges situated in Minnesota, shall for accounting purposes, be classified and treated as a part of the local exchange service operations and so recorded in the records and annual reports.

The Commission has decided to adopt as its own the Uniform System of Accounts prescribed by the Federal Communications Commission and herewith withdraws its request of August 9, 1935, requiring the maintenance of a set of plant and operating expense records to be kept in accordance with the I.C.C. Uniform System of Accounts effective January 1, 1913.

The adoption by this Commission of the accounting classification of accounts prescribed by the Federal Communications Commission is not intended to relieve the telephone companies of the responsibility of preparing and presenting, in a rate case proceeding, evidence to show comparative investment, cost new values, operating revenues and operating expenses for years prior and subsequent to January 1, 1933, when in the opinion of the Commission evidence of that character is desirable and necessary.

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## COLORADO PUBLIC UTILITIES COMMISSION

### Re City and County of Denver et al.

[Case No. 1994, Decision No. 9832.]

*Public utilities, § 57 — Municipal plant — Home rule city — Operation beyond boundaries.*

1. The city and county of Denver and the board of water commissioners, in  
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serving customers with water, beyond the city limits, become a public utility and subject themselves to the jurisdiction of the Commission, although the city is a home rule city under and by virtue of the state Constitution, p. 471.

*Public utilities, § 57 — Municipal plant — Service beyond municipal limits — Effect of agreement with customers.*

2. Municipal plant authorities by requiring the execution of an "application for water supply" with a "notice" stamped thereon containing a reservation of the right to discontinue service to customers beyond city limits does not change the status of the municipal plant in its extraterritorial operations from that of a public utility to a private contractor, p. 471.

*Municipal plants, § 2 — Status — Extraterritorial service — Obligation.*

3. A municipal corporation which engages in a business enterprise in its proprietary, as distinguished from its governmental, functions beyond its corporate limits becomes subject to the same rules of law as an individual or private corporation, p. 471.

*Service, § 119 — Duty to serve — Release by customers — Municipal plant operations — Extraterritorial service.*

4. A municipality furnishing water service to consumers beyond municipal limits cannot relieve itself of the obligation to serve by requiring consumers to sign an application for water supply containing a reservation to the municipal authorities of the right to discontinue service, p. 471.

*Service, § 261 — Discontinuance — Municipal plants — Extraterritorial service — Ultra vires operation.*

5. A defense that a municipal water utility in furnishing water outside of municipal limits is acting beyond its legal powers and that its action is ultra vires is not available as a defense to a complaint that service to consumers in the outside territory has been wrongfully and unlawfully discontinued, p. 471.

*Municipal plants, § 11 — Commission jurisdiction — Extraterritorial service.*

6. A home rule municipality, in furnishing water service beyond the municipal limits as a public utility, is subject to the jurisdiction of the Commission, p. 471.

*Discrimination, § 11 — Powers of Commission — Service discontinuance — Municipal water plant — Extraterritorial service.*

7. Discontinuance of water service by a municipality to certain customers previously served outside of municipal limits without first obtaining the consent of the Commission is a discrimination against such customers which the Commission may remove, p. 471.

*Service, § 233 — Discontinuance — Unprofitableness — Return as a whole.*

8. A public utility as a general rule may not arbitrarily withdraw from territory which it is serving merely because such service is not profitable, when its other operations as a whole are financially successful, p. 471.

*Service, § 2 — Constitutional requirements — Order requiring service restoration.*

9. The Commission, in requiring a municipality to restore water service furnished to customers beyond city limits, does not trespass upon constitutional guaranties, even where compliance with the Commission's order entails a loss to the utility, p. 471.

## COLORADO PUBLIC UTILITIES COMMISSION

### *Service, § 66 — Powers of Commission — Discontinuance — Substitute service.*

10. The Commission has no power to order a municipal water utility to substitute service by the drilling of a well to serve customers whose service has been unlawfully discontinued in territory beyond city limits, although a substituted service may be authorized, p. 471.

[April 17, 1937.]

**C**OMPLAINT *against discontinuance of water service by a municipal plant operating in territory beyond municipal limits; restoration of service ordered.*

**APPEARANCES:** Richard E. Conour, Denver, for the Commission; Glenn G. Saunders, Denver, for city and county of Denver and its board of water commissioners; H. G. Mundhenk, Denver, pro se.

By the COMMISSION: On or about November 1, 1936, the city and county of Denver, acting by and through its board of water commissioners, hereinafter referred to as respondents, disconnected water service that they formerly had been rendering P. W. Henrick, Ed Powers, and Peter Mueller, residents of Arapahoe county, residing at West Yale avenue and South Lowell boulevard.

Complaint having been made to the Commission, the instant case was commenced upon our own motion, by the issuance of an order requiring said respondents to immediately restore water service to said parties or show cause why same should not be done, and also providing for an investigation of the rules, regulations, practices, and service of said respondents relating to said operations outside the municipal limits of the city and county of Denver.

To said complaint and order of the Commission, respondents filed answer alleging, inter alia, that this Commis-

sion has no jurisdiction over respondents for the following reasons:

1. That Denver is a "home rule" city under and by virtue of Art. XX of the state Constitution, and that in its operation of its waterworks system, whether within or without the corporate limits of Denver, it has sole, full, and complete jurisdiction.

2. That the charter of said city only permits its board of water commissioners to "temporarily lease water and water rights to be used outside the limits of the city and county of Denver when the water supply for the city and county of Denver and its inhabitants is above that necessary for its present needs; said leases, however, to be for periods not exceeding one year and to be made subject to the future needs and requirements of the city and county of Denver and its inhabitants."

3. That in its service outside the territorial limits of Denver, it is furnishing water service, not as a public utility, but as a private contractor.

4. That the Commission has no power to amend, limit, extend, or amplify the corporate powers of the city of Denver or any of its departments.

5. That the assuming of jurisdiction in the instant case by the Commission would be contrary to § 1 of Art. XIV of the Constitution of the

## RE CITY AND COUNTY OF DENVER

United States and § 25 of Art. II of the state Constitution.

Other allegations are contained in said answer which will be hereinafter discussed.

### *Statement of Facts*

The record discloses that on or about November 1, 1918, the city and county of Denver purchased from the Denver Union Water Company all of the property of said company which was used and useful in serving the public in Denver and surrounding suburban territory. Said Denver Union Water Company had been serving customers in the "fringe" territory surrounding Denver and this service was continued by respondents. At present, respondents are serving approximately 4,500 users outside of Denver. The total number of taps on all mains is around 71,700. At the time the city took over the property, said total was 46,135. Service to customers outside of Denver was furnished generally to all who made application. In response to the question, "Was that service furnished generally to all who made application therefor and expressed willingness to pay for it?" Mr. George Hughes, an employee of the board of water commissioners, said:

"Practically all, occasionally we did not serve water to some consumers for a short period when we were short of water; we did not receive taps outside of the city of Denver for a period of time."

*Question:* "But, generally speaking, when water was available, you served all customers?"

*Answer:* "When water was available, yes."

Said service outside of Denver has been furnished under a contract which includes a notice reading as follows:

### "NOTICE

"The relation between the board of water commissioners of the city and county of Denver and the consumer named herein, is solely that of private contract. The board undertakes only to furnish water from its existing conduit into supply and distribution pipes which have been connected therewith, and the consumer, taking water from such supply and distribution pipes, agrees to accept such services as the size, location, supply, and method of operation of such conduit, and the size, condition, location, and method of operation of such supply and distribution pipes will permit. The board reserves the right to discontinue this service when, in its judgment, it is for the best interest of the city so to do."

The record further discloses that water service was first rendered the premises now occupied by the aforementioned Walter D. Henrick in April, 1930. The application for said service is signed by one George P. Heinz, who apparently was acting in the relationship of an agent for the wife of the said Walter D. Henrick. Service was rendered said premises continuously until the latter part of October, 1936, and bills for same have been paid promptly. The aforementioned Ed Powers commenced receiving water service the latter part of the year 1926; received such service continuously until same was discontinued November 3, 1936; paid his bills three months in advance, same was paid to January 1, 1937; city offered to re-

## COLORADO PUBLIC UTILITIES COMMISSION

imburse him for overpayment at the time his water was disconnected, but he refused to accept same. The aforementioned Peter Mueller had been receiving water service since January 17, 1923, service continued until November 1, 1936, and all bills for same were paid.

These three parties were all connected with what was known as Conduit No. 9, an old wood stave line. Said line was torn up and abandoned by respondents last fall upon the completion of a new 66-inch concrete pipe line without first seeking or obtaining the authority of the Commission so to do. The new line is approximately 1,300 feet from the property of above parties and respondents agreed to continue to furnish them water if said parties themselves would build connecting lines. The estimated cost of same was the sum of \$3,350 for 3-inch lines, or if built through the "Sullivan" field from twelve to fourteen hundred dollars plus cost of right of way, if any. The reason given by respondents for abandoning Conduit No. 9 was the excessive cost of maintenance. Said complaining parties are now obtaining water the best way they can, hauling same from surrounding wells and borrowing from their neighbors. The estimated cost of wells in this territory runs from \$400 to \$500.

Respondents' engineers estimate the present available water supply will take care of a population of 500,000. The present estimated population of Denver is given as 290,000, and it is expected that the figure of 500,000 will be reached in 1950.

Exhibits 5, 6, and 7 disclose that Heinz signed the "Application for Water Supply" April 14, 1930; Peter

Mueller on December 8, 1922, and "Pat" Powers on January 27, 1927. (Pat Powers was the father of Ed Powers and gave him the property upon which he now resides.) Water was being supplied said premises when he moved thereon, and he himself never signed any "Application for Water Supply." All of said "Applications for Water Supply" had stamped upon the same the "Notice," hereinbefore referred to. In addition, the Heinz application had the following statement signed by Mr. George P. Heinz:

"April 14, 1930

"I hereby agree that I have been notified of the early discontinuance of the 28-inch wood conduit on S. Lowell boulevard as a source of water supply to the city of Denver. However, I am desirous of making a water connection to said main, and in consideration of the board of water commissioners granting said connection I hereby agree that whenever the use of this conduit is discontinued I will make no claim upon the city for further water supply but will provide myself with the water service from another source at my expense."

"(Signed) Geo. P. Heinz"

The answer filed by respondents also alleges that the water conduit (No. 9) was used as a main supply line to the waterworks system supplying the inhabitants of Denver for municipal purposes, and any persons served with water from said conduit were so served solely on the basis of a temporary lease of water under private contract; that four thousand feet of same has already been destroyed and could not be restored without exorbitant and unnecessary expense; that to



## RE CITY AND COUNTY OF DENVER

connect the three persons named in our order to any other conduit would require an expenditure totally disproportionate to any revenue to be received from the sale of water to them; that it should not be required to revise its rules, regulations, and practices relating to service outside of Denver to conform to the provisions of the Public Utilities Act or the Commission's rules, because it would require them to apply a different set of rules and regulations outside than inside the limits of Denver; that if respondents submitted to the jurisdiction of the Commission, it would jeopardize an investment of nearly \$41,000,000 in its water system; that Denver is located in a semi-arid region, and that due to fluctuations in stream flow, the supply is variable; that Denver has been permitting outside service in order to derive revenue to enable it to reduce the cost of its water service to its own inhabitants. Respondents' witnesses testified in substantiation, in part at least, of the above allegations.

We believe the above gives a fair résumé of the material facts upon which the issues in the instant case are predicated.

### *Legal Questions Involved*

[1-10] As we view the matter, the principal question to be determined is whether the operations of respondents in their water service outside the territorial limits of Denver are, in fact, those of a public utility, and if so, whether said operations are under our jurisdiction. Other incidental questions will of necessity be discussed in determining the main issue. This principal question has heretofore been before the Commission. In *Star In-*

*vestment Co. v. Denver* (1919) P.U.R.1920B, 684, 689, we find the broad doctrine promulgated that:

" . . . the city and county of Denver and the board of water commissioners, in serving customers with water beyond the city limits, become a public utility and subject themselves to the jurisdiction of this Commission under the Public Utilities Act of the state of Colorado; that in so doing, the city is acting not in its governmental capacity, but in its private business capacity, and is subject to the laws applicable to a private individual or corporation; that in serving water to consumers outside of its boundaries, the city must charge such rates and apply such rules as are reasonable and as would be applicable to any other corporation or individual serving water to citizens of the state."

Said case arose in connection with the rates charged by respondents to the inhabitants of the town of Aurora. Similar questions were raised by respondents in said case as in the instant case. The Commission assumed jurisdiction and prescribed certain rates. This case was not appealed by respondents. To the same general effect, see *Lamar v. Wiley* (1926) 80 Colo. 18, P.U.R.1927A, 175, 248 Pac. 1009. The *Star Investment Company Case*, *supra*, is upon "all fours" with the instant case unless same may be distinguished upon the theory that respondents, by requiring the execution of the "Application for Water Supply" with the "Notice" hereinbefore referred to stamped thereon (See Exhibits 5, 6, and 7), have removed themselves from a public utility status. An examination of said exhibits discloses the fact that

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same are not "Leases" of water for a period of not to exceed one year as provided for in § 264 (d) of the charter of the city and county of Denver, nor do they indicate that only *surplus* water is to be supplied. However, they do contain the statement that "the board reserves the right to discontinue this service when, in its judgment, it is for the best interest of the city so to do." We can find no authority for the contention that the above arrangement changes the status of respondents from that of a *public utility* to that of a *private contractor* in its outside service. It must be conceded that when a municipal corporation engages in business enterprises, in its proprietary as contradistinguished from its governmental functions, beyond its corporate limits, it becomes subject to the same rules of law as an individual or private corporation.

"When a municipality . . . furnishes public service to its own citizens, and in connection therewith supplies its products to consumers outside of its own territorial boundaries, the function it thereby performs, whatever its nature may be, in supplying outside consumers with a public utility, is and should be attended with the same conditions, and be subject to the same control and supervision, that apply to a private public utility owner who furnishes like service." Lamar v. Wiley, *supra*, at p. 179 of P.U.R. 1927A.

If respondents may relieve themselves of their public utility status by the simple process of requiring all outside consumers to sign said "Application for Water Supply," then the Denver Union Water Company could have accomplished the same results, or any

other public utility in Colorado could likewise put itself in the private contractor class.

In *Berry v. Oro Loma Farms Co.* (Cal.) P.U.R.1917F, 631, 635, the rule is stated as follows: "Contracts establishing rates to be charged by many irrigation companies throughout the state have been generally executed in establishing relations between the company and the water user. A number of such companies have been brought before this Commission on complaint alleging inequitable rates, or have made application for authority to change the rates established by contract; and this Commission has held that the execution of such contracts, even though required in every case preliminary to sale of water, did not constitute a relationship other than would fall under the provisions of the Public Utilities Act."

Respondents, in their brief, quote the case of *Denver v. Brown* (1914) 56 Colo. 216, 221, 138 Pac. 44, as authority for the proposition that "the water consumers were limited, bound, controlled, and governed by their contracts." However, in our opinion, said case is clearly distinguishable from the instant case. The *Brown Case* had to do with the rights of various individuals in a certain ditch taken out of the South Platte river for irrigation purposes. This ditch was acquired by Denver and was known as the "City Ditch." The action was commenced to adjudicate rights to the use of water from said ditch. The opinion states, *inter alia*:

"At an early date individuals began to take water from the ditch for the purpose of irrigating lands. The water thus obtained was secured under

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contracts entered into from time to time, between this class of consumers and the then owners of the ditch. These contracts were only for the irrigating season during the year they were executed; that is, they only covered the irrigating season for the year they were made. The testimony discloses that in many instances, at least, the use of water by these consumers was intermittent. . . ."

The court held that where the contract limited the consumer to a specific volume of water, he was bound by said limitation. The facts are not analogous to the present situation and the rules of law therein promulgated have no application in our opinion. The right to limit its status by contract, as claimed by respondents, no doubt exists under certain conditions of limited service. Here, the service is granted to all who apply, some 4,500 taps being served outside of Denver. No question of water shortage is now involved, nor in all probability will be involved for years to come. Under respondents' contention, they could (by the simple process of taking signed "Applications for Water Supply") extend service indefinitely with only physical restrictions upon the territory to be served, and this would be true even though such service might become competitive with other water service now being rendered by public utilities. We believe such reasoning to be fallacious.

Whether or not the action of respondents in becoming a public utility in its outside water service was *ultra vires*, need not be determined by the Commission. The authorities, we believe, are clear upon the point that such a defense is not available. As

stated in the *Star Investment Case*, *supra*, at p. 689 of P.U.R.1920B:

"It is the contention of the defendant city and the board of water commissioners that they have no authority, either under the Constitution or the statutes of the state, to operate their water system for the purpose of supplying water to the public outside the city limits.

"Some authorities hold that while a city may not primarily construct and operate a public utility for the purpose of supplying the public outside of its limits, yet it may as an incident to such operation dispose of its surplus product in this manner. However, whether it may or may not lawfully so engage, it is not necessary for the Commission to determine at this time. That is a question to be determined by the courts. While the defendant city is actually so engaged, its rates and services are necessarily subject to supervision by some legally constituted body, and it would hardly be contended by the city that it has such jurisdiction in its governmental capacity."

See also *Cardiff Light & Water Co. v. Taylor* (1923) 73 Colo. 566, 216 Pac. 711; *Colorado Springs v. Colorado City* (1908) 42 Colo. 75, 83, 94 Pac. 316. In the latter case, the court held:

"We shall not determine whether the agreement was legally or illegally made, for we shall rest our decision upon the ground that, having received the consideration and having accepted many benefits under the agreement, Colorado Springs cannot complain that her council made the agreement in an illegal manner."

No question exists in the minds of

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the Commission of the value to the residents of the fringe territories surrounding Denver of the outside water service heretofore and now being rendered to said residents by respondents. We believe such action has been beneficial, not only to the growth and extension of said fringe territory, but, as alleged by respondents, has been beneficial to the city and county of Denver in helping said city to reduce its charges for water service to its own consumers. Much of said fringe territory would today be dependent upon an unsatisfactory water supply, except for the service so rendered. We believe the service to have been wise and economically sound from all viewpoints. However, we are at a loss to understand how the assumption by this Commission of jurisdiction over such service might in any wise jeopardize the investment of the city and county of Denver in its water supply system. We further believe that the law contemplates that in its operations outside of Denver, respondents shall be subject to the regulatory control of this Commission. In our opinion, such a rule of law is based upon sound logic and justice. Nor do we believe that the requiring of respondents to conform to the rules and regulations of the Commission in its outside water service, will work any hardship upon respondents. If, as a matter of law, respondents in said outside service, are operating as a public utility, then the discontinuance of service to the three complainants heretofore mentioned without first obtaining the consent of this Commission, was undoubtedly a discrimination against said complainants which this Commission may re-

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move as provided by § 18, of the Public Utilities Act if we are to perform our full duty under the law as we construe the same to be. No doubt respondents felt themselves justified in abandoning Conduit No. 9. We do not question that the cost of maintenance of same has become an economic burden as compared with the revenue derived from those consumers connected therewith.

As a general rule, a public utility may not arbitrarily withdraw from territory which it is serving, merely because such service is not profitable, when its other operations as a whole are financially successful. See *United Fuel Gas Co. v. Kentucky R. Commission*, 278 U. S. 300, 73 L. ed. 390, P.U.R.1929A, 433, 438, 49 S. Ct. 150, where it is stated:

"The primary duty of a public utility is to serve on reasonable terms all those who desire the service it renders. This duty does not permit it to pick and choose and to serve only those portions of the territory which it finds most profitable, leaving the remainder to get along without the service which it alone is in a position to give. An important purpose of state supervision is to prevent such discriminations."

Even though respondents, through their own action, have brought the present condition upon themselves, the Commission is not inclined to penalize them to any greater extent than may be required to restore service to the complaining witnesses. To require an expenditure of over \$3,000, if we accept that cost figure, to restore service to said complaining witnesses, may appear to be a rather harsh and unjustified requirement, particularly in

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view of the fact that said complaining witnesses have been securing said water service from respondents under a notice which, if they had read, would have indicated that said service might be discontinued whenever respondents felt it was to the best interest of respondents to so do. It is true that two of the complaining witnesses have never signed any application containing such a notice. However, we assume they had some knowledge of the method and manner in which respondents were serving customers outside the city limits of Denver.

The power of the Commission, in cases where discrimination has been found to exist, as here, is limited to requiring the utility involved to remove the discrimination. Here, the only way this can be done is by requiring the respondent to restore service to the consumers discriminated against. That this will impose some burden upon the city is apparent, but the burden is comparatively small when considered in connection with the vast operations and resources of the respondent. Also, it could have avoided the outlay of \$3,000 by making timely application for abandonment of Conduit No. 9, where, in such a proceeding, all factors could have been considered. To require restoration of service does not trespass any of the constitutional guaranties, even where compliance with the Commission's order entails a loss to the utility. *Colorado & S. R. Co. v. State R. Commission* (1912) 54 Colo. 64, 129 Pac. 506. Such a loss might be minimized by the drilling of a well for these three consumers. However, the Commission has no power to order such substituted serv-

ice, although a substituted service may be authorized. The order here must be to remove the discrimination by restoration of service. However, upon proper application by respondent, the Commission would be inclined to authorize the substitution of a well and appropriate pipes and distribution facilities, in lieu of the installation of water mains and service lines from the new conduit, if any saving to respondent will result.

After a careful consideration of the record, the Commission is of the opinion, and so finds, that in its service to customers outside of the corporate limits of the city and county of Denver, respondents are, in fact and in law, operating as a public utility, and as such public utility are subject to the jurisdiction and control of this Commission.

We are further of the opinion and find that in disconnecting water service to W. D. Henrick, Ed Powers, and Peter Mueller, on or about November 1, 1936, without permission from this Commission, respondents were guilty of discrimination against said parties as compared with service rendered to other consumers outside of Denver.

We are further of the opinion, and so find, that in their operations outside the corporate limits of the city and county of Denver, respondents should be required to revise their rules, regulations, and practices to conform to the provisions of the Public Utilities Act and the rules of the Commission promulgated pursuant thereto.

### ORDER

It is therefore *ordered*, (a) That respondents, the city and county of Denver, acting in this behalf by and

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through its board of water commissioners, be, and they are hereby, ordered to revise their rules, regulations, and practices relating to water service outside the corporate limits of the city and county of Denver, to conform to the provisions of the Public Utilities Act and the rules of the Commission promulgated pursuant thereto; (b) that said respondents shall, within six-

ty days from the date hereof, restore water service to said complainants, W. D. Henrick, Ed Powers, and Peter Mueller.

It is *further ordered*, that jurisdiction of the instant case be, and the same is hereby, retained to the end that such further order or orders may be issued herein as to the Commission may seem to be just and necessary.

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## PENNSYLVANIA SUPERIOR COURT

### William J. Kast, Attorney in Fact for J. M. Anderson

v.

### Public Service Commission

(— Pa. Super. Ct. —, 189 Atl. 526.)

#### *Discrimination, § 99 — Electric rates — Classification — Balanced load.*

1. A classification of electric customers under which the advantages of a wholesale polyphase light and power rate are available only to customers having a balanced load is lawful and not unreasonable or discriminatory, p. 478.

#### *Discrimination, § 99 — Electric rates — Availability of wholesale rate — Balanced load.*

2. Unlawful discrimination does not result from the denial of the advantages of a wholesale polyphase light and power rate, available to customers with a balanced load, to a customer who, prior to the effective date of such rate, received service under retail light and power rates and who after the effective date of the wholesale schedule rewired his premises without arranging the wiring to take polyphase service, notwithstanding the fact that other customers in a transitional group who formerly took wholesale service were accorded the advantages of the wholesale polyphase rate during a gradual process of changing over either to polyphase service or to a general light and power rate, p. 478.

#### *Rates, § 254 — Optional schedules — Selection by customer.*

3. The status of a customer who is eligible to either of two optional rates is determined by his actual selection, p. 480.

[January 29, 1937.]



## KAST v. PUBLIC SERVICE COMMISSION

**A**PPPEAL from Commission order dismissing a complaint against alleged discrimination by an electric utility company in refusing to furnish service to a customer under a wholesale polyphase light and power rate; order affirmed. For Commission decision, see 14 P.U.R.(N.S.) 296.

Argued before Keller, P. J., and Cunningham, Baldrige, Stadtfeld, Parker, James, and Rhodes, JJ.

APPEARANCES: Joseph B. Meranze and Maurice A. Granatoor, both of Philadelphia, for appellant; Harry H. Frank and John C. Kelley, Legal Assistants, Samuel Graff Miller, Assistant Counsel, and Richard J. Beamish, Counsel, all of Harrisburg, for appellee; Frank M. Hunter, of Chester, for intervener.

CUNNINGHAM, J.: In January, 1935, Wm. J. Kast, acting as attorney in fact for J. M. Anderson (hereinafter referred to as the appellant), filed a complaint with the Public Service Commission against the Philadelphia Electric Company (hereinafter called the company), alleging undue and unreasonable discrimination by the company in refusing to admit appellant into a certain class of its customers hereinafter described. In substance, the complaint charged a violation of Art. 3, § 8, of our Public Service Company Law of July 26, 1913, P.L. 1374, 66 PS, § 262, by which it is declared, inter alia, that it shall be unlawful for any public service company to charge any person or corporation for any service rendered a greater or less compensation than it receives from any other person or corporation for a like service under substantially similar circumstances and conditions, or to

subject any person or corporation to any undue or unreasonable prejudice or disadvantage in any respect.

After a full hearing and investigation, the Commission dismissed the complaint, and we now have this appeal by the complainant, in which the company was permitted to intervene as a party appellee. Appellant is the owner of an 8-story office building at No. 328 Chestnut street, Philadelphia, known as the "Brown Building," and is a consumer of electric current, both for lighting and power uses. The building was unoccupied by tenants until May or June, 1933, but appellant became a customer of the company in November, 1932. Shortly thereafter he had a single phase lighting load of 3,550 kilowatts, which by July, 1934, had increased to a connected lighting and appliance load of 17.5 kilowatts. He also had a polyphase motor or power load of 27.375 kilowatts which subsequently increased to some extent. Under the tariffs of the company then in effect, appellant was billed under schedule "B" for light, and "C" for power. No criticism is made relative to appellant's original classification under those schedules.

Effective March 2, 1933, the company made a radical change in its "Electric—P. S. C. Pa. No. 7." It consisted in the elimination of the distinction between light and power rates and the substitution of classifi-

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cations distinguishing between single phase and polyphase service. The prior "B" and "C" rates were withdrawn and a new and reduced retail rate designated "RLP—Retail Light and Power" substituted. Later, January, 1935, a further reduction was made by a schedule designated "GLP—General Light and Power Rate," providing for the furnishing of light or power, or both, at retail. Appellant has received the benefit of these reductions.

[1, 2] The controversy which gave rise to these proceedings had its origin in the fact that the schedule put into effect on March 2, 1933, contained a new wholesale polyphase light and power rate designated "WLP—Wholesale Light and Power." Under § 13 of the company's rules and regulations, forming a part of its No. 7 schedule and relating to "Customer's Use of Service," a paragraph (No. 5) was included and entitled "Unbalanced Load." It reads: "The customer shall at all times take, and use, energy in such manner that the load will be balanced between phases to within nominally 10 per cent. In the event of unbalanced polyphase loads, the company reserves the right to require the customer to make the necessary changes at his expense to correct the unsatisfactory condition, or to compute the demand used for billing purposes on the assumption that the load on each phase is equal to that on the greater phase." (14 P.U.R.(N.S.) at p. 298.) The reasonableness of this rule is not questioned.

In November, 1934, appellant applied to the company for service at the above-mentioned wholesale rate,

designated "WLP." As we read the record, and avoiding so far as possible the use of technical terms, the company refused his application for service under that rate upon the ground that, although he had rewired his building subsequent to the effective date of the "WLP" rate, he did not "balance" his load as required by the above-quoted rule. In other words, the company admits in its answer that the building is "wired standard for the electric service which said building is now receiving under Rate GLP," but does not have a standard installation which would enable appellant to comply with its "unbalanced load" requirements. Appellant's charge of discrimination seems to be based chiefly upon averments to the effect that a large number of other customers formerly served under a wholesale rate, designated as "D-Max" and superseded by "WLP," were brought under and given the advantage of the new "WLP" rate, but appellant was denied the privilege thus conferred upon certain other customers.

The company admits that one of the changes made in its tariffs on March 2, 1933—the abolition of its former "D-Max" wholesale rate—left its customers under that rate, approximately 1,200 in number, in a position requiring special consideration.

The members of that group who did not have balanced load wiring could rewire to conform with the requirements of the rule forming part of the new wholesale schedule, "WLP," or they could go under the retail schedule "RLP," and its reduced successor, "GLP." These customers are referred to in the testimony and

## KAST v. PUBLIC SERVICE COMMISSION

record as a "transitional" group, and it is into this group that appellant demands admission, although he was never under the old "D-Max" rate.

The findings of the Commission upon this aspect of the case read:

"When the wholesale rate 'D-Max' was withdrawn there was a residue of approximately 1,200 customers to be disposed of; 200, to their advantage, were transferred to the new and reduced retail rate 'RLP,' the same rate under which complainant [appellant] received his service at that time. There was a question as to whether or not the remaining 1,000 wholesale consumers fully met the requirements of the unbalanced load rule as it stood after the revision. Because these consumers had always been properly classified as wholesale consumers and had always developed their load conditions in conformity with the rules of respondent [company] in force from time to time, respondent resolved the doubts in favor of the consumers and classified this group of approximately 1,000 consumers on the 'WLP' or wholesale rate. This policy was with the avowed intention of clearing the situation either through further modifications of the rate schedules or by rearrangement of load conditions within the consumer's property, if and when such consumer made any change in his load or wiring conditions. In line with this policy, when the retail rate 'RLP' was reduced and changed to rate 'GLP,' approximately 100 more of the wholesale consumers on the 'WLP' rate who had come over from the former wholesale rate 'D-Max' were transferred to the retail classification. . . .

"The retail rate under which complainant is classified is designed to meet the condition where respondent obtains the desired degree of balance between consumers' loads within its own distribution system. The wholesale rate 'WLP,' on the other hand, is designed to apply to those consumers who balance their own loads and thus obtain from respondent a service which can be more economically rendered, and at a rate more attractive to them. . . .

"Moreover, rate classifications normally arise out of the different conditions under which consumers take service and the relative obligation placed on the company to provide for that service. Consequently, respondent has the right to file a rate available to those consumers who take polyphase service and balance their own loads on their own wiring circuits. We do not find this to be an unreasonable classification nor is it discriminatory or unreasonable to deny complainant access to the rate 'WLP' when complainant at the time he rewired his property did not arrange his load requirements to meet the then established terms and conditions so that the polyphase rate could be applied to his service without question." (14 P.U.R.(N.S.) at p. 298.)

Such classification seems to be expressly authorized by § 1 (b) of Art. 3 of the statute (66 PS, § 152), and we agree with the conclusion of the Commission that it is not unreasonable or discriminatory.

It was argued on behalf of appellant that the requirements now made by the company should apply only to new buildings, or those being rewired

## PENNSYLVANIA SUPERIOR COURT

for additional loads. In reply to this suggestion the Commission said: "Complainant is one of those who has rewired his property for additional load since these classifications became legally effective. The fact that respondent did apply this principle to a small group of wholesale consumers with unchanged load conditions does not make respondent's refusal to accord complainant the same classification, an unjust, unreasonable, or discriminatory act. Complainant was formerly and properly classified as a retail consumer and it is only the changes he made in his wiring and load conditions since the present rules went into effect that makes his present service at all comparable with these former wholesale rate 'D-Max' consumers. There is no reason why he should be accorded more favorable treatment than the thousands of other wholesale consumers who have met the requirements. He had every opportunity to put himself in a position to receive the polyphase wholesale classification had he desired to do so." (14 P.U.R.(N.S.) at p. 301.)

Admittedly, appellant's building did not have balanced load wiring at the time of his complaint. The evidence indicates that he began rewiring his building extensively about May 4, 1933, shortly after the "WLP" rate and rule became effective. There was evidence that his superintendent was advised to arrange the wiring to take polyphase service but declined to do so, although the connected lighting load was increased from three to seventeen kilowatts. Estimates of the additional cost to meet the requirements of the rule ranged from \$75 to \$357.

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Another consideration here involved is that the group to which appellant demands admission is a constantly diminishing class of customers, undergoing a gradual process of changing over either to "WLP" or "GLP." Compelling reasons should be shown for adding any new members to that class and thereby prolonging the adjustment of the old "D-Max" consumers to the new classification.

We see nothing unreasonable about making the new "WLP" rate conditional upon compliance with the "unbalanced load" rule; or in refusing that rate to one who has failed to wire his building in a manner which will enable him to comply with the rule.

[3] Again, appellant argues that he should be treated as being in the same position as former "D-Max" wholesale consumers because, as he asserts, he would have been entitled to that rate if he had applied for it immediately prior to its withdrawal on March 2, 1933. Aside from the fact that, for reasons satisfactory to himself, he did not apply for the "D-Max" rate, we are not convinced from the evidence that his service at that time would have entitled him to that rate. The retail rates "B" and "C" under which appellant was then classified were applicable to lighting and power service to "officers, commercial and industrial establishments," but the "D-Max" rate was available to users of "large quantities" of light or power, or both, and carried "demand" or "stand-by" charges not included in the "B" and "C" rates. Even where a customer is eligible to either of two optional rates, his status is determined by his actual selection.

## KAST v. PUBLIC SERVICE COMMISSION

Spear & Co. v. Public Service Commission, 105 Pa. Super. Ct. 240, P.U.R.1932D, 384, 161 Atl. 441.

Upon an examination of the testimony and exhibits, we are satisfied the findings of the Commission are supported by the evidence. The subject matter of the complaint and the respective contentions of the parties

brought the proceeding within the administrative functions and jurisdiction of the Commission. Being of opinion that its action in dismissing the complaint did not exceed the legitimate administrative discretion with which it has been clothed, we shall not disturb its conclusions.

Order affirmed.

### NEW HAMPSHIRE PUBLIC SERVICE COMMISSION

## Re Manchester Gas Company

[D-E1808.]

#### *Labor, § 2 — Commission jurisdiction.*

1. The Commission is wholly without jurisdiction in the field of labor relations, p. 483.

#### *Construction and equipment, § 2 — Commission jurisdiction — Questions of unemployment.*

2. The Commission has no warrant to consider questions of employment or unemployment as such in determining whether a gas utility should change its manufacturing equipment from coal gas to water gas, p. 483.

#### *Gas, § 3 — Commission jurisdiction — Method of gas manufacture.*

3. The Commission is empowered to investigate and ascertain the quality of gas supplied by public utilities and the methods employed in manufacturing or supplying gas, p. 483.

#### *Gas, § 3 — Managerial function — Gas manufacturing equipment.*

4. Decision as to the manner in which a gas company shall attempt to meet its problem of gas manufacture, either by using coal-gas or water-gas equipment, is essentially within the realm of managerial initiative and discretion; and although the proper exercise of this managerial function is subject to the Commission's investigation and disapproval, it should not be restricted except as clearly required by the public interest, p. 485.

#### *Gas, § 5 — Manufacturing equipment — Coal gas and water gas — Safety.*

5. No support was found for a finding that a change from coal-gas to water-gas production would appreciably increase the hazard to either those working in the plant or those consuming its output, p. 486.

#### *Gas, § 5 — Manufacturing equipment — Coal gas and water gas — Cost.*

6. Comparisons of average costs for plants of varying sizes and characteristics fail to give an adequate basis for conclusions as to the relative merits of coal-gas and water-gas operation, but a decision as to which type of gas manufacture should be followed must be based primarily upon analysis of the particular situation, p. 488.

[February 8, 1937.]

## NEW HAMPSHIRE PUBLIC SERVICE COMMISSION

**I**NVESTIGATION of proposed change in method of manufacturing gas; investigation and proceeding discontinued and dismissed.

**APPEARANCES:** B. W. Couch, for the Manchester Gas Company; James Nelson, President, District No. 50, United Mine Workers of America, and Henry Wise, Special Counsel, for the United Mine Workers of America and Local Union No. 12011.

**SMITH, Chairman:** The Manchester Gas Company, hereinafter termed the company, was duly organized under the laws of the state of New Hampshire in 1921, as a consolidation of the Manchester Gas Light Company and the Peoples Gas Light Company. The necessary transfer of properties and the issuance and distribution of \$600,000, par value, of common stock and \$600,000, par value, of 7 per cent preferred stock, were approved by this Commission, and the company was authorized to operate as a utility supplying gas to the public in the city of Manchester, which formerly had been served by its predecessors. Re Manchester Gas Light Co. and Peoples Gas Light Co. (1921) 8 N. H. P. S. C. R. 249. Subsequently the company was given the requisite authority to operate also in the adjacent community of Goffstown. Re Manchester Gas Co. (1928) 11 N. H. P. S. C. R. 479.

In 1923, because of obsolescence of its production facilities and the necessity of their enlargement to meet the requirements of business growth, it became necessary for the company to discard its existing water-gas plant. It is represented that the decision at

that time to convert to coal-gas production, rather than to enlarge or reconstruct the water-gas plant, was due to a combination of factors, including the prevailing high prices of oil, which is a principal raw material in water-gas production, uncertainty as to the future of oil supply and price, and the good market then existing in Manchester for the by-products of coal-gas production, particularly coke for domestic fuel uses. The Commission, upon consideration of the entire situation, the estimated costs of the proposed changes amounting to more than \$600,000, and the probable effects upon production costs and rates, found that the construction and installation of the coal-gas plant would be for the public good, and therefore authorized the issuance and sale of \$300,000, par value, of common stock and \$300,000, par value, of 7 per cent preferred stock to finance these plant changes and any other uncanceled additions and improvements. Re Manchester Gas Co. (1923) 9 N. H. P. S. C. R. 34.

The rebuilding of the vertical retorts then installed became necessary in 1930. At that time it was decided that by the construction of a vertical chamber oven plant, at an estimated cost of nearly \$370,000, the capacity could be increased from 1,200,000 cubic feet to 1,500,000 cubic feet daily, the life of the generating plant could be prolonged, the labor cost could be reduced, and a better grade of by-product coke could be produced. On



## RE MANCHESTER GAS CO.

this basis the Commission authorized the issuance and sale of \$400,000, principal amount, of 5 per cent serial gold notes to cover this cost and to provide additional working capital. *Re Manchester Gas Co. (1930) 13 N. H. P. S. C. R. 245.*

### *Origin of This Proceeding*

At present the company is confronted by the fact that neither its coal-gas nor its water-gas production equipment is in effective working condition and that substantial outlays must be made for changes and reconditioning, if the public is to be served adequately and if operating conditions and costs are to be on an efficient and reasonable plane. After extensive studies over a period of months by engineers of the United Gas Improvement Company—which owns 4,200 of the 9,000 outstanding shares of the common stock of the company, with which it has management agreements, thereby creating an affiliation subject to the supervision of this Commission under the provisions of P. L. Chap. 258A—the company intends to reline and overhaul its water-gas sets at an estimated cost of \$25,000, plus an additional \$10,000 for necessary readjustments of consumers' apparatus. The reasons for the decision to modernize the water-gas equipment, rather than to rebuild or refill, at an estimated cost of \$23,000 per bench, the 8 unusable ovens of the 15 ovens in the 3 benches of the existing coal-gas plant, are discussed below. Since the manufacture of water gas requires the carrying of much less extensive investments in material and by-products than are necessary in the case of coal gas, the company expects to be able

to reduce its commitments of working capital to such use from \$89,000 to \$14,000 and to finance the necessary changes through the resultant liquidation of inventories. Therefore it has not been necessary for the company to seek our authorization to issue and sell securities. In this respect the present situation differs from those presented by the former basic changes of plant referred to above as having been specifically approved by the Commission.

[1-3] It appearing that this change in manufacturing methods would entail the displacement of twenty-one men regularly working for the company, certain of the employees, together with local and district officials of their organization, Local Union No. 12011, District No. 50, United Mine Workers of America, hereinafter collectively termed the employees, late in August, 1936, protested to and sought the aid of this Commission, which, however, is wholly without jurisdiction in the field of labor relations. Nevertheless, in an unsuccessful effort to effect agreement between the disputants, the Commission arranged a joint conference with representatives of the employees and of the company September 8, 1936.

### *Jurisdictional Issues*

Although this Commission has no authority to adjudicate labor disputes and no warrant to consider questions of employment or unemployment as such, it is empowered, by the provisions of P. L. Chap. 240, § 6, "to investigate and ascertain, from time to time, the quality of gas supplied by public utilities and the methods employed . . . in manufacturing or

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supplying gas [and other utility services], and, after notice and hearing thereon, . . . to order all reasonable and just improvements and extensions in service or methods."

The employees having alleged that the changes contemplated by the company—which were then progressing toward completion—would jeopardize the health and safety of both workers and consumers and would tend to increase, rather than to lower, production costs, the Commission, pursuant to the above-quoted provision of law, on September 11, 1936, entered an order of investigation into these changes "with particular reference to the probable costs of service and the public safety as affected thereby," at the same time requesting the company to abstain from completing the change-over during the pendency of this proceeding.

On September 16, 1936, the Commission notified the parties of its retention, as consulting engineer to conduct this investigation, of Charles D. Jenkins of Scituate, Massachusetts, who for fifty years prior to his retirement in 1932 because of age had been employed as an engineering expert by the Department of Public Utilities of the commonwealth of Massachusetts and its predecessor Commissions, most recently as director of the division of gas, electric, and water utilities. Mr. Jenkins was instructed to proceed immediately with his study of the changes intended by the company and to submit his report as promptly as would be consistent with a proper and thorough investigation of:

1. The probable effect upon the cost of manufacturing gas of the change from reliance primarily upon coal-gas

to the use, principally or exclusively, of water gas, giving particular consideration to:

(a) the efficiency and condition of, and the necessity of immediate outlays upon, the equipment presently used by the company; and

(b) the plans for reconditioning and enlarging the existing water-gas plant.

2. The probable effect of the change upon the public safety, embracing:

(a) the safety of the consumers of gas; and

(b) the safety of the employees of the company, with special attention to:

(1) the operating condition of the existing water-gas plant, as affected by the plans for its repair and extension, and

(2) the adequacy of the operating crews intended to be used by the company.

In his studies Mr. Jenkins received the coöperation and assistance of the Commission's chief engineer and accountant, as well as of representatives of the company and of the protesting employees. The company, meanwhile, complied with the Commission's request that no further steps to effect the change be taken until this proceeding should have been disposed of, although its operating problems have become increasingly difficult, it being represented that the delay has cost the company in the neighborhood of \$100 a day.

Mr. Jenkins' report, hereinafter called the report, which was in every particular favorable to the changes determined upon by the company, was filed with the Commission and trans-

## RE MANCHESTER GAS CO.

mitted to the parties on November 6, 1936. Thereupon counsel for the employees sought an opportunity for examination upon the report and for the presentation of opposing testimony. Accordingly, after proper notice, hearings were held in Concord on November 24 and 25 and December 1, 1936. Oral argument was had, and briefs were received, on December 18, 1936.

The field covered in these proceedings, through both direct testimony and cross-examination, was very broad. Data concerning the financial history and condition of the company, as well as operating costs and conditions in this and other New Hampshire gas utilities, were adduced by members of the staff of the Commission. Expert testimony was introduced by the company in support of the conclusions of the report and in further explanation and justification of its plans. Its general manager was questioned at length concerning its financial position and operating policies. The employees, through exhaustive cross-examination as well as direct testimony from certain of the workers, endeavored to show that the Commission should require the repair and continued operation of the coal-gas plant. From the nature of the proceeding and the wide scope of the record, it is evident that we have before us a comprehensive view of the situation.

It is conceded by all concerned that the coal-gas plant in its present condition cannot be operated efficiently and with assurance that the public will be adequately served. An effort was made on behalf of the employees to attribute this condition to unwise and improvident management policies. More particularly, this involved ques-

tions as to the soundness of the judgment used in deciding upon and installing the existing coal-gas plant and the suggestion that accidents during its construction, and the character of the coals subsequently used, might be responsible for its present faulty condition. Notwithstanding the fact that both the original installation and the reconstruction of the company's coal-gas plant received the approval of this Commission as bases for the issuance and sale of securities, it may be that errors of judgment occurred. Because of the affiliation existing between the company and the United Gas Improvement Company, which furnishes its engineering and construction services and which controls the manufacturing processes upon which its equipment is based, it is especially important that all such decisions and transactions be scrutinized closely in the public interest. The consumers of gas cannot be made to bear the costs of experiments or errors of judgment, nor can they be expected to carry unnecessary plant facilities. No such issues, however, are involved in this proceeding. We are confronted, not by a theory, but by an existing condition. The production facilities of the company are inadequate and inefficient and it is essential that they be reconditioned or replaced as soon as possible. It is therefore unnecessary for us to discuss at length the various claims and counter-claims which have been advanced in condemnation or justification of managerial policy in the past; the question here presented is, what shall be done to meet the present situation.

[4] In this connection it must be recognized that the company is in no

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sense in the position of petitioner in this proceeding. Our prior authorization of the changes deemed necessary or advance approval of the plans therefor are not required as a matter of law. It is, therefore, the view of the Commission that decision as to the manner in which the company shall attempt to meet its present problem is essentially within the realm of managerial initiative and discretion. It follows that the proper exercise of this managerial function, although of course subject in every way to our investigation and disapproval, should not be restricted except as clearly required by the public interest. In our consideration of the instant case we find no basis for such restriction in terms of the probable effects of the decision of the company as to manufacturing methods upon either the safety of its employees and the public at large or its unit costs of gas production.

### *Effect upon Public Safety*

[5] As to the allegation that the change to water-gas production would tend to increase the hazard, both to the employees of the company and to the consumers of gas, little evidence was submitted by either of the parties. This phase of the situation was investigated, however, and is covered by the conclusions set forth in the report, which are supported by some corroborative testimony by the expert for the company.

The company manufactured and sold water gas exclusively from 1915 to 1923, and during part of the year 1930. Of the nine other gas plants now operating in this state, only two now produce coal gas, the remaining

seven making water gas. At present about one third of all gas sold in New Hampshire is water gas; should the company manufacture water gas exclusively, the statewide production would be in the order of three-fourths water-gas and one-fourth coal gas. Water-gas manufacture and sale is common, not only in this state, but throughout the country. In Massachusetts the proportion of water gas to total gas production is one-fourth, with the percentage excluding the Boston output standing at about forty.

Either coal gas or water gas, because of its carbon monoxide content, may be dangerous to life. The breathing of air containing from 0.2 per cent to 0.5 per cent carbon monoxide may be fatal. Although water gas has a somewhat higher specific gravity and greater carbon monoxide content than coal gas—the figures being about 0.680 and 28 per cent, respectively, as compared with 0.550 and 23 per cent, respectively, for the gas now being made and distributed by the company—it is evident that there is little to choose between the two gases in this respect.

There is nothing within the records or experience of the Commission, in the history of the water-gas plants long operated in New Hampshire, or in the testimony of the experts who appeared in this proceeding, to support a finding by us that the change to water-gas production will appreciably increase the hazard to either those working in the plant or those consuming its output. On the other hand, testimony by certain of the employees clearly shows that a real hazard to the workers now exists in connection with the operation of the existing coal-gas plant

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because of the sticking of charges requiring dangerous poking for their removal. No comparable hazard has been alleged or shown to be present in the operation of a water-gas plant. Plans for reconditioning the water-gas equipment appear to provide adequately for safe operation. The allegation as to comparative safety of the employees, therefore, has been contradicted, rather than substantiated, by the testimony of the protestants by whom it was advanced.

### *Effect upon Cost of Gas*

The second allegation of the employees concerned the probable effects of the change to water-gas manufacture upon the unit costs of the gas produced. The report supported the conclusions of the company that, from the standpoints of both capital outlays for reconditioning and net expenses of current operation, the conversion to water gas would tend to produce lower costs than would the continued manufacture of coal gas.

It is difficult to draw valid general comparisons between the operating costs of water-gas plants and coal-gas plants. The production costs of both gases vary from plant to plant according to the sizes and outputs of the plants involved, and, for any given plant, fluctuate with changes in the prices of the principal raw materials. In the case of coal-gas plants, gross production costs are reduced materially by production credits derived from the recovery and sale of by-products, particularly coke for domestic fuel uses, which are ordinarily slight in the case of water-gas production. It follows, therefore, that the net cost of coal-gas production depends directly

upon, not only the efficiency and size of the plant and its output, but also the state of the local market for the coal derivatives, and especially coke.

The influence of these factors may be illustrated by reference to a few significant figures taken from a comparative study of production costs of the three coal-gas and seven water-gas plants operating in New Hampshire for the years 1930 to 1935, inclusive, which was developed for the use of the Commission in this proceeding. For the six years under consideration averages of the net costs for the three coal gas plants were 34.51 cents, 36.90 cents, and 39.52 cents per thousand cubic feet. During this period the production of the coal-gas plants varied from 76,665,000 cubic feet for the Portsmouth Gas Company in 1933 to 465,557,000 cubic feet for the Manchester Gas Company in 1932. Gross production costs varied from 69.31 cents per thousand cubic feet for the Manchester Gas Company with an output of 406,434,000 cubic feet in 1933 to 100.57 cents per thousand cubic feet for the Portsmouth Gas Company with an output of 83,021,000 cubic feet in 1930. The corresponding production credits, however, were 34.33 cents per thousand cubic feet and 64.64 cents per thousand cubic feet, respectively. Net costs in these two cases, therefore, were not widely different, being 34.98 cents for the Manchester Gas Company in 1933 and 35.93 for the Portsmouth Gas Company in 1930.

Viewing again all the coal-gas plants over the entire period, production credits varied from 29.90 cents per thousand cubic feet for the Nashua plant of the Public Service Com-

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pany of New Hampshire, with an output of 186,083,000 cubic feet and a net production cost of 41.60 cents per thousand cubic feet in 1932, to 64.64 cents per thousand cubic feet for the Portsmouth Gas Company in 1930, when its output was 83,021,000 cubic feet and its net production cost was 35.93 cents per thousand cubic feet. Net production costs for all the coal-gas plants ranged from 27.32 cents per thousand cubic feet on an output of 257,958,000 cubic feet for the Manchester Gas Company in 1930, to 45.40 cents per thousand cubic feet for the Portsmouth Gas Company in 1935, when its output was 77,822,000 cubic feet. From the foregoing it seems clear that it is dangerous to generalize as to coal-gas production costs, which vary from plant to plant and from time to time within the same plant, depending upon the output and degree of utilization of facilities and the prices of materials and efficiency of operation, as affecting gross costs, and also upon the recovery of and local market for by-products, as affecting production credits and therefore net production costs.

In the cases of the water-gas plants, production credits are relatively unimportant, and we shall therefore confine our discussion of cost variation to the course of net production costs. The average of the net costs for the 6-year period covered, ranged from 37.11 cents per thousand cubic feet for the Concord Gas Company to 65.20 cents per thousand cubic feet for the Rochester plant of the Strafford-York Gas Company, while the annual costs ranged from 34.29 cents per thousand cubic feet for the Concord Gas Company, on an output of

172,679,000 cubic feet in 1932, to 76.50 cents per thousand cubic feet for the Strafford-York Gas Company, on an output of 24,685,000 cubic feet in 1930. Again, it is obvious that there are wide variations of unit costs among water-gas plants of varying sizes and conditions, as well as within the same plant from year to year.

When, however, the net production costs of a representative water-gas plant are compared with those of a coal-gas plant of similar capacity and output, it appears that the differentials of cost between plants of the two types are smaller than those prevailing among the various plants of the same type and than those arising from year to year within the same plant. For example, the largest water-gas output in the state is now that of the Concord Gas Company, which in 1935 produced 181,990,000 cubic feet at a net cost of 38.50 cents per thousand cubic feet. The coal-gas output closest to this production in 1935 was that of the Nashua plant of the Public Service Company of New Hampshire, with an output of 194,041,000 cubic feet and a net cost of 38.86 cents per thousand cubic feet, as compared with 41.19 cents for the Manchester Gas Company on 422,296,000 cubic feet.

[6] From the foregoing, and also from the experience elsewhere, as outlined in the report and presented in evidence, the Commission is of the opinion that comparisons of average costs for plants of varying sizes and characteristics fail to give an adequate basis for conclusions as to the relative merits of coal-gas and water-gas operation in answer to the present difficulties of the company. It is ap-



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parent that each instance is to a degree unique, and therefore that decision must be based primarily upon analysis of the particular situation with which we are here confronted.

From the engineering studies which have been made of its own particular problem and situation, the company has concluded that it will be able to manufacture water gas at a net production cost in 1937 of 37.97 cents per thousand cubic feet, assuming an output of 429,000,000 cubic feet, or 3.22 cents less than the net cost per thousand cubic feet for 1935, and 3.98 cents less than the estimate of 41.95 cents per thousand cubic feet for an equal output for 1937 consisting of 90 per cent coal gas and 10 per cent water gas. This estimate of water-gas cost is based upon the following schedule of production expenses:

	\$	¢/1,000 cu. ft.
Superintendence and labor ..	21,640	5.04
Materials .....	128,410	29.93
Supplies and miscellaneous expense .....	8,490	1.98
Maintenance .....	11,800	2.75
Gross production expenses	170,340	39.70
Production credits .....	7,440	1.73
Net production cost .....	162,900	37.97

The estimated total net production cost of \$162,900 for an output of 429,000,000 cubic feet of water gas in 1937 is \$17,040 less than the corresponding estimate of \$179,940 for the manufacture in 1937 of an equal output under possible operating methods involving the production of approximately 90 per cent coal gas and 10 per cent water gas. It is represented that the manufacture of water gas exclusively would permit annual savings of approximately \$27,000 in labor cost and \$16,000 in

maintenance, but these gross savings would in part be offset by increases in the net cost of raw materials, due chiefly to the reduction of production credits from the recovery and sale of residuals or by-products. For the first year, however, the net saving of approximately \$17,000 would be further reduced by about \$13,500, because of so-called Termination or Dismissal Allowances offered by the company to its displaced employees on the basis of a sliding scale reflecting the age of the employee, his term of service, and his present rate of compensation.

The employees sought to show that "the prudential character of management policies and techniques are questionably wise" and argued that, therefore, "the cost estimates, unless clearly convincing beyond peradventure of a doubt, are disentitled to be causative factors in allowance and sanction of the company's contemplated change-over from predominantly coal-gas manufacture to exclusively water-gas manufacture." We have set forth at some length above our view as to the burden of proof in this proceeding and as to the proper scope of managerial discretion in the present situation. It will therefore be unnecessary here to reanalyze this contention, but we shall proceed directly to an examination of the other questions raised concerning the estimates of costs and savings.

The attack upon these estimates consisted chiefly of an attempt to show, principally through cross-examination, that the actual costs of water-gas output would be higher than expected and that the costs of past coal-gas production, as well as the es-

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timated future cost of coal gas, with which the estimates of water-gas costs were compared, were unduly high and should be reduced.

As to past coal-gas operation, questions were raised specifically as to fluctuations in the cash position of the company, in the status of its receivables, in its inventories of materials and supplies, in its depreciation charges, and in its expenditures for maintenance, as well as concerning its relations with the United Gas Improvement Company, particularly with respect to pavements under the management contract referred to earlier in this report, which payments amounted to \$5,365.44 in 1935, of which \$4,270.90 constituted charges to operating expense.

Obviously not all of the items questioned enter into production expense. It is therefore unnecessary to discuss them all in detail. For the present purpose it will suffice to observe that the annual charges for both depreciation and maintenance have been made in compliance with the "Uniform Classification of Accounts for Gas Utilities" prescribed by this Commission, and that we find in the record no basis for challenging or revising them. Of the total management fees paid in 1935, \$1,000 was for purchasing services, of which only \$596 was charged against coal purchases, thus entering into the fuel costs as shown in operating expenses and in the statements and estimates of past and future net production costs. This amounts, not to  $\frac{1}{2}$  cent per thousand cubic feet as alleged, but to 0.156 cents per thousand cubic feet on the estimated production of 386,000,000 cubic feet coal-gas to be combined

with 43,000,000 cubic feet of water-gas to produce a total 1937 output of 429,000,000 cubic feet on the assumed ratio of 90 per cent to 10 per cent. Whether the company could more cheaply perform this service through a purchasing department or employees of its own is questionable.

As to the estimates of future coal-gas costs, the coal price used of \$6.70 per ton was alleged to be too high by 27 cents under certain unexercised renewal options in a purchase contract, which, however, in any event would have run only one year from June 30, 1936. Combining the allegations made with respect to both past coal-gas cost and estimates of future coal-gas costs, counsel for the employees sought to show that the estimated figure of 41.95 cents per thousand cubic feet as the net production cost of a possible 1937 output of 429,000,000 cubic feet, of which 90 per cent might be coal gas and 10 per cent water gas, is at least 4.75 cents too high. Under his contention, the cost would be 37.20 cents, or 0.77 cents less than the estimate of 37.97 cents for all water gas. For the reasons explained above, however, we cannot concur in the various deductions he proposed. While some doubt has been cast upon the company's policies with respect to by-product disposal, the record affords no basis for the conclusion that production credits under coal-gas manufacture can be materially increased from this source. Therefore we accept as more nearly accurate the estimates of the company, which are adequately supported by expert testimony and which have received the general approval of our engineers.

Counsel for the employees ques-

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tioned also the estimated net production cost of 37.97 cents per thousand cubic feet on an assumed 1937 output of 429,000,000 cubic feet of water gas exclusively. The principal items of the estimated gross production cost are set forth in the schedule shown earlier in this report.

No attempt was made to show that materials, estimated at a total of \$128,410 or 29.93 cents per thousand cubic feet, and accounting for more than 78 per cent of the entire net production expense, would cost more than the estimated amounts or that the price bases used—5.07 cents per gallon for gas oil, which accounts for nearly half the total expense for materials, \$7.12 per ton for generator fuel in the ratio of 20 per cent coke and 80 per cent bituminous coal, and \$3.70 per ton for boiler fuel—were unduly low. Nor was the allowance of \$8,490, or 1.98 cents per thousand cubic feet, for supplies and miscellaneous expense attacked. Inquiry was made as to the maintenance item of \$11,800, or 2.75 cents per thousand cubic feet as compared with the estimate of \$28,170, or 6.57 cents per thousand cubic feet for an equally large output consisting of 90 per cent coal gas and 10 per cent water gas. It appears, however, that experience points to much lower maintenance costs for water-gas than for coal-gas operation because of the lack of such charges on the elaborate handling and charging machinery needed in coal-gas manufacture and the feasibility of periodic shut-downs for more efficient repair in the case of water-gas production when, as in this instance, more than one set of equipment is to be used. As to superintendence and

labor, estimated at \$21,640, or 5.04 cents per thousand cubic feet, for all water gas as against \$48,810, or 11.38 cents per thousand cubic feet, for 90 per cent coal gas and 10 per cent water gas, the reduction of charges for superintendence from \$9,810 to \$5,910 was not challenged, but the remaining labor charges of \$15,530, or 3.36 cents per thousand cubic feet—roughly 9.5 per cent of the entire net production expense—was alleged to be insufficient. The evidence, however, does not support a conclusion that the crews contemplated by the plans of the company would be inadequate to the safe and efficient operation of the plant.

From the foregoing it appears that the net current costs of gas production will be substantially less under the plans of the company for the manufacture of water gas exclusively than they were in 1934 or 1935 for the exclusive production of coal gas, or at the present time when both water gas and coal gas are being produced by the company in the ratio of approximately 1 to 2, or than they would be under the suggested combination of 10 per cent water gas and 90 per cent coal gas, which is supported by the employees.

It appears that, generally speaking, and because of the great influence of fluctuations in the prices of raw materials and by-products upon the net production cost of gas, the ideal situation is one where both water-gas and coal-gas equipment is available, thus providing for flexibility and ready change from one method to the other as the above-mentioned factors vary. This ideal is stressed in the

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report, as well as by counsel for the employees, and is admitted by the expert for the company. It is, however, an ideal situation which may not be attained without cost, and perhaps, as appears to be the case in the situation here under consideration, not without requiring an unnecessary investment in production facilities which the ratepayers should not be required to carry. Neither the expert for the company nor the Commission's engineers concluded that it would be appropriate to attempt to provide for such a theoretically ideal combination plant in Manchester at the present time.

It is conceded that to recondition and enlarge the company's existing water-gas sets will necessitate an investment of approximately \$25,000, plus an additional \$10,000 for adjustments of consumers' installation. It is conceded, also, that the present coal-gas plant is in a dangerous and inefficient condition, the company's expert having admitted that its production costs are now from 5 to 10 cents per thousand cubic feet higher than they would be if the entire 15 ovens were in first-class operating condition. To refill the ovens in two of the three benches would require, at a cost of \$23,000 per bench, an outlay of \$46,000, plus an additional \$20,000 for overhauling and enlarging the water-gas sets. Thus the immediate outlay to permit the production of 90 per cent coal gas and 10 per cent water gas would exceed that required for exclusive water gas manufacture by approximately \$31,000. Furthermore, this would largely, if not entirely, preclude the possibility of inventory liquidation referred to above as

a source of funds for financing the intended change.

We find no justification whatever for insistence upon an unnecessary additional investment of \$31,000. From the evidence it appears that the net production costs of an output consisting exclusively of water gas will now be lower than the costs of a combination of coal gas and water gas. Should the situation later change, because of changes in materials prices and by-product markets, the additional outlay might become desirable. In such event it will still be possible, and but little of the present expenditure for conversion will be rendered useless as a result. The changes presently intended are sufficiently flexible, likewise to permit, with still further expense, conversion to the use of so-called Bunker C heavy oil for generator fuel should such a step become economically wise.

An additional reason for avoiding unnecessary capital outlays is found in the recent financial history of the company. Its customers have decreased in number from nearly 16,000 in 1926 to only about 12,500 in 1935. Gas sales have declined from a peak of 425,829,000 cubic feet in 1931 to 385,526,300 cubic feet in 1935. Net operating income fell from \$147,674.89 in 1931 to \$46,210.93 in 1935, and during the same period surplus has been reduced from \$238,594.17 to \$187,113.95. Dividends on the common stock, which for many years had been paid at the rate of 8 per cent, were cut to 2 per cent for 1933 and have been suspended entirely since that time. Dividend payments on the 7 per cent preferred stock were cut to 3.75 per cent in

## RE MANCHESTER GAS CO.

1935, with the result that voting control has now passed to the preferred stockholders.

The company asserts that it would be unable to borrow, at least on reasonable terms, the funds required to recondition its coal-gas plant, and, as pointed out above, relies upon liquidation of its inventories to finance the change to water-gas operation. Were the comparison of cost between water-gas and coal-gas production different, this inability to borrow would cast serious doubt upon the familiar argument of financial support so often advanced in support of holding company control. Under the circumstances, however, it is difficult to

see how the company could reasonably request from any source, even its parent company, loans to permit an uneconomical investment.

### *Conclusion*

For the foregoing reasons we find no basis for continued objection, upon grounds of either public safety or probable costs of gas, to the changes in manufacturing methods presently intended by the company. Accordingly, this investigation and proceeding are hereby discontinued and dismissed. No order is necessary.

Barry and Swain, Commissioners, concurred.

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## PENNSYLVANIA PUBLIC SERVICE COMMISSION

Joseph and Louis Davis

v.

Duquesne Light Company et al.

[Complaint Docket No. 11230.]

*Payment, \$ 58 — Deposit — Counterfeit bill.*

A customer's first payment of deposits for gas and electric service when made through the medium of a counterfeit bill is ineffective.

[January 12, 1937.]

**C**OMPLAINT to compel refund of deposit made under protest;  
dismissed.

By the COMMISSION: This matter comes before us upon complaint of Joseph and Louis Davis that the Duquesne Light Company and Equi-

table Gas Company, respondents herein, after having issued their receipt evidencing payment of deposits required from prospective consumers be-

## PENNSYLVANIA PUBLIC SERVICE COMMISSION

fore installing service, had refused to provide service until complainants had paid an additional \$20. This amount was paid by complainants under protest, and this proceeding was brought to compel refund thereof.

At the hearing it was developed that in payment of the deposits which amounted to \$15, Joseph Davis had tendered a \$20 bill. He received \$5 change and a receipt evidencing payment. After complainant had left respondent's place of business, it was discovered that the \$20 bill was counterfeit. Diligent efforts were made by respondents to locate the complainants and advise them that their money was counterfeit. It was further developed that the entire collection for the day, by the clerk who took complainants' deposits, was only \$25, and that the only \$20 bill turned in by any clerk during the day was by this same clerk. These circumstances negative the pos-

sibility of loss of identity of the bill by mingling with other money.

There was no contention by respondents and we do not find that complainants had passed the bill with knowledge that it was counterfeit.

Before supplying service to complainants, the respondents insisted upon repayment to them of the \$5 given complainants in change, at the time of the original transaction. This repayment was required in addition to the usual deposit fees amounting to \$15, or a total of \$20.

Full consideration of the record in this proceeding convinces us that complainants' first payment of deposits for gas and electric service was made through the medium of a counterfeit bill and was, therefore, ineffective; therefore,

Now, to wit, January 12, 1937, it is *ordered*: That the complaint be and is hereby dismissed.

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## MISSOURI PUBLIC SERVICE COMMISSION

### Re St. Joseph Railway, Light, Heat & Power Company

[Case No. 7630.]

*Depreciation, § 34 — Annual allowance — Authorized amount — Variation by company.*

A public utility company, upon being authorized by the Commission to set aside a fixed amount annually for depreciation, should not be authorized to set aside, when deemed advisable, a smaller amount in one year and then to set aside an excess amount in the following year; the company is obligated to set aside annually the depreciation annuity as provided by the Commission.

[May 24, 1937.]



## RE ST. JOSEPH RAILWAY, LIGHT, HEAT & POWER CO.

**D**ETERMINATION of proper annual depreciation allowance for a public utility company; depreciation allowance determined.

ANDERSON, Commissioner: There was a report and order issued in this cause by the Commission on the 5th day of February, 1937, in which it was provided that the St. Joseph Railway, Light, Heat and Power Company was directed and ordered to appear before the Commission at a time and place designated by it to offer evidence as to a depreciation annuity so that the Commission could ascertain, determine, and order the said company to set aside a retirement reserve.

By notice issued by the Commission on the 7th day of April, 1937, the St. Joseph Railway, Light, Heat and Power Company was duly notified in this matter that there would be a hearing had before the Commission at its hearing room in Jefferson City, Missouri, on April 19, 1937, concerning a retirement reserve. There was a hearing had on that date before a member of the Commission after all interested parties in this case had been notified of the time and place of said hearing. The appearance on behalf of the St. Joseph Railway, Light, Heat and Power Company was by counsel and the appearances on behalf of the Commission were by S. B. Nelson, its chief engineer and George B. Coleman, acting chief accountant.

The evidence in this matter was to the effect that the company, the St. Joseph Railway, Light, Heat and Power Company, had for the past ten years fixed a depreciation reserve annually of \$312,000 a year which had

voluntarily been set aside by the company but it was further shown that the company did not deem that amount adequate at the present time and requested that they be authorized to set aside a depreciation reserve annually in the amount of \$325,000.

Evidence on behalf of the chief engineer of the Commission was to the effect that subsequent to the issuing of the order by the Commission on the 5th day of February, 1937, which order directed that the company appear before the Commission at a time designated by it to offer evidence so that the Commission could determine a depreciation annuity, that he had made an investigation concerning the additions and betterments of the company's property and the amount that he thought would be fair to be set aside by the company annually as a retirement reserve to be \$322,000, the same being based on a very careful study made by the engineering department of the Commission. When that statement was made into the record by the chief engineer of the Commission the company voluntarily agreed to accept that amount as a depreciation annuity annually to be set aside by it but requested that the company be permitted and authorized, if it deemed advisable, to set aside annually an amount of \$50,000 less than the depreciation annuity providing it would be authorized to set aside the following year an amount in excess of \$50,000 of the retirement reserve as pro-

## MISSOURI PUBLIC SERVICE COMMISSION

vided for annually. The reason being if the company was permitted and authorized to deviate as to a fixed amount annually that it would be very helpful to the company in view of the fact of the substituted service that is being performed by the company in the nature of the busses and trolley coaches in the present transportation system and will also aid the company in a financial way.

In disposing of the issue in this cause that is before the Commission at the present time it evidently is not necessary to fix a different amount other than that agreed upon between the company and the engineering department of the Commission. But in order for the Commission to properly make disposition of the request granted by the company to the effect that the company be permitted and authorized to deviate from the fixed amount as will be determined by the Commission for the depreciation annuity it is necessary for the Commission to take into consideration § 79 of the General Regulatory Act, § 5200, Rev. Stats. Missouri, 1929, in which section it is provided that the Commission shall have power, after hearing, to require any or all gas corporations, electrical corporations, and water corporations to carry a proper and adequate depreciation account in accordance with such rules, regulations, and forms of account as the Commission may prescribe. Under this wording of the statute it certainly was the intent of the general assembly in the passing of said enactment to empower the Commission, as a matter of law, to fix

a depreciation annuity annually and that the said retirement reserve so ascertained or determined by the Commission should be set aside by the company out of the moneys or funds derived by the company from earnings of it and carry the same in a depreciation fund and expend such fund only for such purposes as directed by the Commission. The statute certainly does not contemplate that the depreciation fund or retirement reserve should be so fixed by the Commission that one year the company would be able to set aside a certain amount and the following year set aside an amount in excess of the amount set aside in that year, or, in substance, under the statute the company is obligated as a matter of law to set aside each year annually the depreciation annuity as provided by the Commission and the only way that the company should be permitted or authorized to deviate from setting aside that amount would be by the Commission issuing another order authorizing or directing the same.

Wherefore, from the views heretofore reached in this matter the Commission deems it advisable to authorize the company to set aside annually a depreciation annuity or retirement reserve in the amount of \$322,000 a year plus 3 per cent of the net additions less retirals made subsequent to May 14, 1937, as a retirement reserve fund, and an order expressing those views will accordingly be so issued.

Hargus, Chairman, Nortoni and Ferguson, Commissioners, concur.  
Boyer, Commissioner, not sitting.

# Industrial Progress

## Gas Industries to Exhibit at World's Fair

**T**HE Gas Exhibits, Inc., has been organized to conduct the gas industries exhibit at the New York World's Fair in 1939.

The following officers of the new corporation were elected: President, H. H. Cuthrell, vice president of Brooklyn Union Gas Co.; Vice President, W. T. Rasch, president of American Gas Products Corp.; Secretary, C. W. Berghorn, executive secretary, Association of Gas Appliance and Equipment Manufacturers; and Treasurer, N. T. Sellman, vice president, Consolidated Edison Co.

The gas industries contemplate spending a million dollars in this activity.

## Frank G. Boyce Promoted by Consumers Power Co.

**F**RANK G. Boyce, Manager of electric production and transmission of the Consumers Power Company has been made Vice-President, according to an announcement by Dan E. Karn, Vice-President and General Manager.

Mr. Boyce joined Consumers Power Company twenty years ago as Assistant Manager of the Production and Transmission Department. He succeeded the late Bryce E. Morrow as Manager in January, 1936.

## Barco Announces Two New Portable Hammers

**T**HE Barco Manufacturing Company of Chicago, Illinois, manufacturers of Barco Portable Gasoline Hammers, has developed two new models—one known as the H-6 heavy duty type, weight 89 pounds, the other Model J-2, weighing about 70 pounds.

The changes incorporated consist of a new timing device and rearrangement of the bottom end. The tie rod springs have been eliminated and in place of them an internal cushion spring is used. When lifting the hammer for a new location, this spring takes the shock of the blow, materially reducing the impact shock to other parts. The changes also result in giving the hammer slightly more power and reducing the vibration somewhat. A new quick acting lock for the tool is another of the features, and various other minor improvements have been incorporated.

The heavy duty, Model H-6, is recommended for pavement and rock breaking, shallow drilling, backfill tamping, asphalt cutting, sheeting driving and general demolition work.

The small Model J-2 has been developed for

continuous drilling and with it there is available a complete set-up including a small portable compressor for ease in transportation to the interior and other inaccessible locations.

These portable gasoline hammers and drill-



*New Portable Hammer*

ers are moderately priced, cheaply operated and about as effective as other mechanical tools.

Detailed information will be gladly supplied upon request. Communications should be addressed to the company at 1801 Winnemac Avenue, Chicago.

## IBM Corporation Sets New Safety Record

**A** NEW industrial safety record for New York State has been made by International Business Machines Corporation, its Endicott plant having operated 4,500,000 man-hours without an accident. This period is equivalent to the full-time labor of one man for more than twenty centuries. The previous record of 4,434,713 man-hours was made by a Syracuse company in 1931. The Endicott plant is now attempting to better the national record of 11,000,000 man-hours without an accident.

## "The Davey Diary"

**P**UBLICATION of a new monthly house organ called "The Davey Diary" was announced recently by the Davey Compressor Co., Inc., Kent, Ohio.

First issue of the new paper, which appeared

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July 1, was mailed to the more than 5,000 Davey salesmen, dealers, distributors, and users throughout the world. Along with it went a personal letter from Paul H. Davey, president, inviting comments and criticism.

### Lay Cornerstone of Edison's "Tower of Light"

**F**ORMAL exercises marked the laying of the cornerstone of the permanent "Tower of Light" in commemoration of Thomas A. Edison, which was held July 1st, at Menlo Park, N. J., where Edison had his laboratory for many years. President Thomas N. McCarter of Public Service Corporation of New Jersey, acted as chairman and delivered a brief address. Other speakers were Governor Harold G. Hoffman of New Jersey; William Slocum Barstow, of New York, honorary president of the Edison Pioneers; Owen D. Young, chairman of the Board of General Electric Company, and James Burke, of Erie, Pa., president of the Edison Pioneers. The invocation was given by Rev. James G. Mason who was a personal friend of the late Mr. Edison while the inventor was at Menlo Park.

A feature of the ceremonies was the recording of a message by Charles Edison, assistant secretary of the navy, speaking into his father's first phonograph, repeating an experience of many years ago when the original instrument was perfected.

### Mercoid Issues New Sales Brochure

**E**NTITLED, "Built To Endure," the new 16-page sales brochure just issued by The Mercoid Corporation, is devoted to a class presentation of Mercoid products.

Bound in spiral binding, this book illustrates and describes Mercoid controls that "have grown up with the development of automatic heat." Among the descriptions are those of the Sensatherm thermostat, Pyrratherms, line safety controls, limit and low water controls for steam boilers, temperature limit controls, warm air furnace controls, and sealed mercury contact switches.

The back cover of this book is slotted to hold Mercoid sales helps and sales literature for dealers and distributors.

A copy of this book will be sent gratis, upon request on business letterhead, addressed to 4213 Belmont Avenue, Chicago, or to the editor.

### Rural-Line Transformers

**"O**N the Horizon with Wagner Rural-Line Transformers" is the title of a 4-page bulletin which gives construction details and illustrates several rural line transformer assemblies, built by The Wagner Electric Corporation.

Copies of this bulletin, Form S521, may be obtained from the Wagner Electric Corporation, 6400 Plymouth Avenue, St. Louis, Missouri.

JULY 22, 1937

### New Type Safety Valve Offered by Connelly Company

**T**HE development of an improved mercury seal valve for positive control of gas flow is announced by Connelly Iron Sponge & Governor Company. This unit when placed ahead of the meter on service lines eliminates hazards resulting from any interruption of the gas supply or even the slightest pressure drop below the safe minimum.

The mercury seals the valve shut in closed position and it cannot be opened except by the inspector with valve key, so that no tampering is possible. The valve is highly sensitive and



Connelly Mercury Seal Valve  
Type DCMV

can be adjusted for functioning promptly at desired minimum pressure. The design overcomes the uncertainties encountered in other types of valves, such as leakage due to sediment, which is entirely avoided in Connelly construction.

This mercury seal valve can be used to advantage on high-pressure house governors in place of the usual mercury seal, or to provide a positive safety shut-off for pilot lights. It is suitable for pressures up to one pound, and is made in all pipe sizes from  $\frac{1}{4}$  in. to 4 in. with threaded connections.

### Handi-Grip Wire Skinner

**A**HANDY new wire skinner tool that can be used to cut and strip the insulation, scrape the wire and straighten kinks and sharp bends, is announced by the Ideal Commutator Dresser Company, Sycamore, Illinois.

Hardened tool steel blades used in this tool have the cutting edges hollowed in the cen-

# You can save "Stacks of Money" with TONCAN IRON



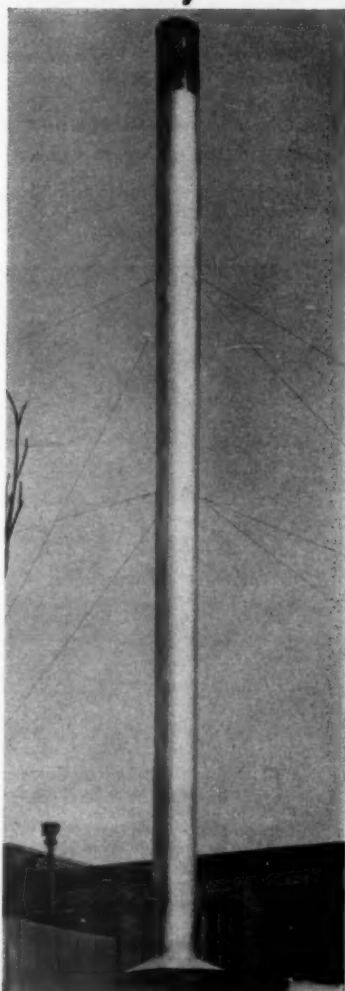
● Replacement of rusted-out sheet metal parts—stacks, tanks, roofing, siding, ducts—cost money—in amounts which stack up year after year into enormous figures.

Much of this waste—this expense—can be eliminated—and in a very simple manner—by using Toncan Iron for all sheet metal parts wherever corrosion causes early failure of ordinary ferrous materials.

Toncan Iron resists rust and corrosion—because it is an alloy of refined open-hearth iron, copper and molybdenum. Its resistance to rust is greater than that of any other ferrous material in its price class. It costs slightly more than ordinary sheet metal, but the extra life it affords more than pays the difference.

Toncan Iron is economical in another way, too. It is soft, ductile and easy to work. Sheet metal shops report substantial savings in fabrication costs.

If you would like to know more about this cost-cutting sheet metal and how it is saving "stacks of money" for most every type of industry, write today for a free copy of the booklet, "The Path to Permanence."



**Republic Steel**  
CORPORATION  
GENERAL OFFICES CLEVELAND, OHIO



REPUBLIC PRODUCES A SHEET FOR EVERY DEGREE OF CORROSION-RESISTANCE—PLAIN CARBON STEEL, COPPER-BEARING STEEL, COPPER-BEARING IRON, TONCAN COPPER MOLYBDENUM IRON AND ENDURON STAINLESS STEEL.

When writing Republic Steel Corporation (or Steel and Tubes, Inc.) for further information, please address Department PF.

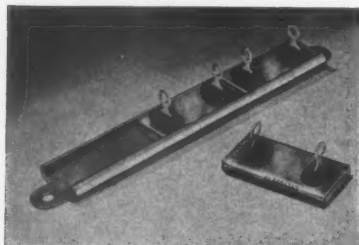
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ter to prevent the wire from slipping. The blades are removable for resharpening.

An aluminum handle hooks around the fingers to give pulling grip. The back of this handle is grooved to supply a means of straightening kinks and sharp bends in the wire. Pulling is done entirely with the handle, permitting sensitive pressure on the blades to give correct stripping.

### BYO Voltage Dividers

**B**Y means of handy sectional units and a mounting base of the required length to accommodate them, it now becomes possible to build or rather assemble one's own voltage divider to meet any individual need, according



*Clarostat's Voltage Dividers*

to Clarostat Manufacturing Company, Inc., Brooklyn, New York. The new Clarostat Series BYO, or Build-Your-Own Resistor Network, is now made available in sectional units of the necessary resistance values, together with mountings to take care of from one to six units.

### New Burnham Products

**T**HE Burnham Boiler Corporation has issued descriptive literature and prices covering a new product — The Burnham-Taco Flexible Header-Heater.

This horizontal Taco Heater is built right into a Header with the popular Burnham Flexible Connectors, making a complete unit.

These Header-Heaters are conservatively rated, simple to install and economical in operation.

A new price sheet covering Burnham's complete line of High Test Hot Water Supply Boilers also has been issued.

For further information, address the Burnham Boiler Corporation, Irvington, New York.

### Plan Television Demonstration

**T**ELEVISION will be given a public demonstration by the Radio Corporation of America and the National Broadcasting Company at the 1939 New York World's Fair which is dedicated to "The World of Tomorrow."

The millions of visitors to the Fair will have an opportunity to watch demonstrations

JULY 22, 1937

of every aspect of radio and television—the modern world's and the future world's most effective means of communication and entertainment.

### Public Utility Broadcast Programs Win Awards

**R**ADIO programs sponsored by the Pacific Gas and Electric Company and the Philadelphia Company of Pittsburgh, won the first and second awards of the Public Utilities Advertising Association as the best utility broadcast features of 1937.

The winning program was "Tales of California"—a series of dramas founded on incidents in California's history. Listeners contributed suggestions for stories to be dramatized. The "Pittsburgh Varieties" program won the second award. Both programs were presented by the National Broadcasting Company.

The Consolidated Edison Company of New York sponsored the prize winning program "Echoes of New York Town" last year when the Association's radio award was first made. The Association has made similar awards in other advertising fields since 1925.

### Utility Increases Sales of Ranges and Water Heaters

**S**ALES of electric ranges and electric water heaters in the territory served by the Northern States Power Company, Minneapolis, Minnesota, are breaking all records, according to figures recently issued by the company. For the first five months of 1937, electric ranges totaling 3604 and 1848 electric water heaters were connected in customers' homes. The company serves 600 communities in Minnesota, North and South Dakota, Wisconsin, and a small section of Illinois.

### For Your Information

**A** FOURTH edition of the Procedure Handbook of Arc Welding Design and Practice which includes the latest weld symbols adopted by the American Welding Society in May and a new introduction to part six, "Designing for Arc Welded Steel Construction of Machinery" has been announced by the publishers, The Lincoln Electric Company, Cleveland, Ohio. (839 pages, more than 1,000 illustrations, price \$1.50 postpaid in U. S. A.—\$2.00 elsewhere).

The addition of the new material included at this time, rather than being deferred until publication of the fifth edition, is in line with a policy of supplying the latest and most important information about arc welding through the medium of the Handbook. The book is the recognized authority on arc welding and its widespread acceptance is indicated by the fact that its sale has exceeded 40,000 copies.



## PIPE STOPPERS



### All Types PIPE LINE SUPPLIES

Goodman Stoppers  
Gardner-Goodman Stoppers  
Goodman-Peden Stoppers  
Goodman Cylindrical Stoppers  
Bags—Rubber, Canvas Covered  
Plugs, Service & Expansion  
Pumps  
Masks  
Brushes  
Tape—Soap & Binding

*Catalogue mailed on request.*

**SAFETY GAS MAIN STOPPER CO.**

523 Atlantic Avenue  
Brooklyn, New York

### DAVEY LINE CLEARING SERVICE

## Davey Service Pleases

Many features of Davey service delight utility companies. Some of these are:

- Low Unit Costs
- Availability Everywhere
- Hand-picked Men
- Thorough Training
- Systematic Planning
- Constant Supervision
- Reliability

Davey men welcome difficult problems. If you have a tree situation that troubles you, try Davey service. It will please you.

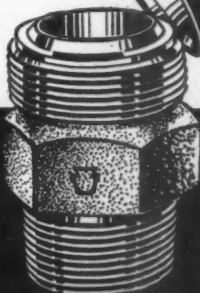
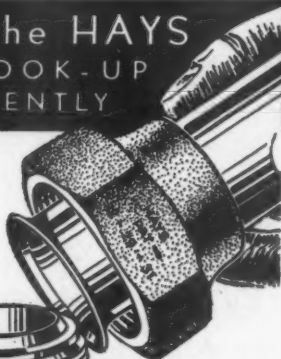
THE DAVEY TREE EXPERT CO.

KENT, OHIO

## DAVEY TREE SERVICE

Use the HAYS  
TO HOOK-UP  
EFFICIENTLY

More than  
400  
Styles and  
Sizes



APPROVED BY  
UNDERWRITERS  
LABORATORIES

COPPER METHOD  
Modern APPLIANCES  
and ECONOMICALLY

**WHEN** you use Double Seals you get doubly tight connections. Note how the 2 faced flare of the tubing fits snugly over the 2 machined seats of the fitting to make mechanically strong copper tube connections. Every Double Seal joint is a union joint and only Hays Double Seals tie in 100% with iron pipe in a

wide selection of styles and sizes. Connect appliances and instruments; install water and gas service lines and use the Hays Copper Plumbing Method for general utility work. It's tested under severe stresses and approved by Underwriters' Laboratories. Send for details.

HAYS MFG. CO.



ERIE, PENNA.

## Specify HAYS DOUBLE SEALS

## Republic Steel to Enlarge Alabama Plant

CONTRACTS have been awarded for additions to the Gadsden (Alabama) mills of the Republic Steel Corporation to cost approximately \$2,000,000 according to a recent announcement.

L. E. Geohegan, general manager of the company's Gulf Steel division, said that the sheet mill would be enlarged at a cost of about \$1,000,000 and its capacity increased about 50 per cent.

Two 125-ton open-hearth furnaces will be built at a cost of about \$750,000.

## Dresser Mfg. Company and Clark Brothers Merge

CLARK Brothers Company, of Olean, New York, manufacturer of gas engines and compressors, has been merged with S. R. Dresser Manufacturing Company, Bradford, Pennsylvania, manufacturer of flexible pipe joints and pipe line equipment, according to a recent announcement.

Clark Brothers Company was founded in Belmont, New York, in 1880. Following a destructive fire in 1912 the plant and business was removed to Olean. F. A. Miller is chairman; C. P. Clark, president, and J. B. O'Connor, vice-president. The Dresser Manufacturing Company was organized in Bradford in 1880 by Solomon R. Dresser. H. N. Mallon is president and M. N. Davis, vice-president.

## G. E. to Increase Wire Output

FACILITIES for the manufacture of insulated wire, cable and cord at the Bridgeport plant of the General Electric Company will be increased by more than 50 per cent by Aug. 1, according to an announcement by C. E. Wilson, vice president.

## Cameron Motorpump Described

THE Ingersoll-Rand Company has issued a new bulletin (No. 1972-B) which illustrates the Cameron Motorpump condensate return unit and shows many of its applications. The bulletin also contains information regarding sizes and capacities.

Copies may be obtained from the Ingersoll-Rand Company, 11 Broadway, New York City, or any branch office.

## New Bartlett Catalog

THE Bartlett Manufacturing Company has issued its new Tree Trimming Equipment Catalog No. 23. The catalog, bound in an attractive cover, describes and illustrates various types of tree trimmers, pruners and saws, as well as safety belts, straps, tree climbers, tools and other equipment used in tree trimming work. A complete price list is included.

Copies of this catalog may be obtained by writing the Bartlett Manufacturing Company,

JULY 22, 1937

3025 East Grand Boulevard, Detroit, Michigan.

## General Electric Plans World's Fair Exhibit

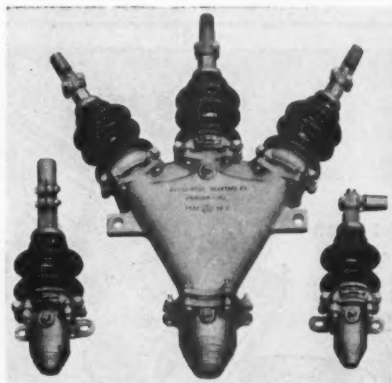
THE General Electric Company has contracted for 68,339 square feet of exhibit space at the New York World's Fair 1939, and plans a spectacular presentation of what electricity will do in the world of tomorrow.

Architects and technicians are now at work upon the details of the 1939 presentation which will considerably amplify the "House of Magic" idea used by the General Electric Company at the Century of Progress Exposition in Chicago. A more comprehensive picture of electrical progress will be achieved in an area approximately four times that employed in Chicago. Particular emphasis will be placed on electricity in the "world of tomorrow"—on farms, in the home, in industry and transportation, and in the social life of man.

## Delta-Star Cable Terminators

THE interchangeable bushing cable terminators, shown in the accompanying illustration, have spring diaphragm stud connectors and are manufactured by the Delta-Star Electric Company, Chicago.

These terminators, made for voltages from 7.5 to 30 K.V., are designed to insure vacuum



Vacuum Tight Terminators

tightness under extreme conditions. The stud connectors are made from hexagon hard drawn copper rod and seating shoulders built-up of laminated spring bronze slotted washers engage recesses in hexagon portion. When the cap nut is tightened the laminations flex and press the hood nut gasket compensating for temperature changes and gasket aging.

## New Delta-Star Price List

THE Delta-Star Electric Company, Chicago, Illinois, has issued price list 65-1 giving complete prices on cable terminators of various voltages. Copy upon request.

PENNSYLVANIA

TRANSFORMERS

## 8 Reasons Why Pennsylvania Distribution Transformers Give Maximum Service and Economy


- 1 Coils are *circular*—not rectangular—so that they withstand short circuits without distortion.
- 2 Coils are of the *open* type, similar to power transformers—instead of the ordinary closed type.
- 3 Coils are treated in varnish—not compound—and therefore will not soften under high temperature nor contaminate oil.
- 4 Coils, due to open type construction, have a *low temperature gradient* between copper and oil—a feature which permits greater overloads with perfect safety!
- 5 Coils are treated at a temperature limited to 105°C (the maximum permitted by A. I. E. E.), thus assuring a *permanently safe* and pliable insulation.
- 6 High-tension and low-tension bushings are bolted from the exterior of case, eliminating necessity for handling tools on inside.
- 7 The transformer insulation is properly co-ordinated with the flash-over of the bushings, thus providing necessary surge-resisting qualities.
- 8 The transformer is so designed that radio interference is reduced to a minimum.

2 *No matter how complex your problem may seem,  
our engineers can help provide the solution.*

**Pennsylvania Transformer Co.**  
1701 Island Avenue, N. S., Pittsburgh, Pa.



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# ***MAKE INSULATION MEET THE TEST OF A GOOD INVESTMENT***

**G**OOD investments can't be judged by price alone. More important is the security provided by full and continued dividends.

Primarily an investment, insulation must be bought on the same basis . . . must prove its worth in terms of maximum cash returns on fuel savings.

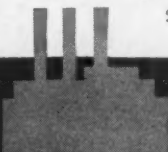
Throughout the country, hundreds of power plants have assured themselves of these insulation dividends. Johns-Manville Engineers, using J-M Insulations, have played an important

part in increasing plant efficiency and in reducing operating costs.

Backed by J-M's 75 years of research and field experience on insulation problems, these engineers can help you select the insulation best suited to each individual requirement in your plant. They work with insulations of maximum efficiency and uniformity and are able to recommend the right amount and proper application. For details, address Johns-Manville, 22 E. 40th St., N. Y. C.



## **Johns-Manville**



## **INDUSTRIAL INSULATIONS**

An insulating material for every temperature . . . for every service condition

# "HE'S DOWN IN THE PLANT TODAY!"

## More than Ever Before Top Executives Are Back Scrutinizing Every Plant Operation

*A great, highly trained organization of lubrication Specialists helps to develop profitable economies in plant operation*

THE "BIG BOSS" takes his experience back into the plant today . . . because the keenest industrial minds in America recognize the need for more know-how, more knowledge of machines . . . more skilled workers.

For 71 years the makers of Gargoyle Lubricants have been helping the men who own plants . . . the men who run them. This experience — the greatest in the oil business — can be put to work in your plant . . . increasing manufacturing profits.

Take a Socony-Vacuum Engineer into your confidence. Let him discuss a program of planned "Correct Lubrication" with your plant men . . . those who know your operating problems best. Together, they may be able to devise ways and means of gaining more efficient production.

### WHAT THIS EXCLUSIVE SERVICE CAN DO FOR YOUR PLANS

- 1 Curb losses that boost power consumption and costs.
- 2 Decrease maintenance — eliminate unnecessary repair bills.
- 3 Improve production results by greater machine efficiency.
- 4 Lower lubrication costs.
- 5 Help your men find ways to devise important economies.

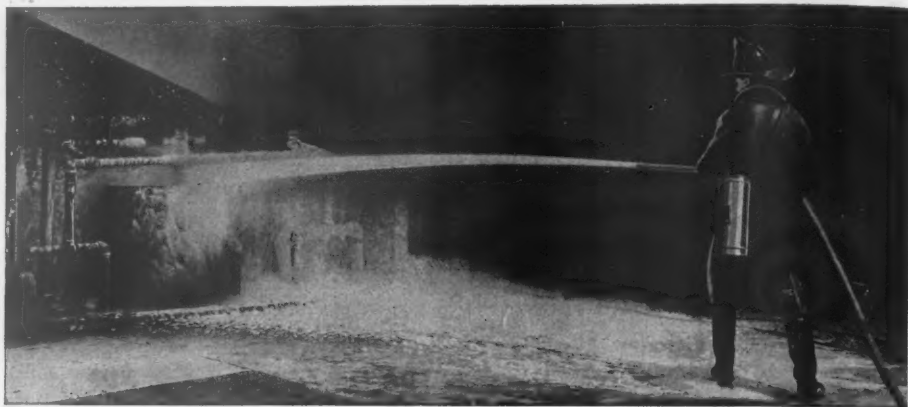
**SOCONY-VACUUM**  
INDUSTRIAL LUBRICATION



**SAVES  
MONEY  
FOR  
INDUSTRY**

71 Years' Lubrication Experience — the Greatest in the Business

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## A New Low-Cost Foam Tool!

### Combines Water, Solution and Air To Form Fire-Smothering Foam

Public utilities are welcoming this revolutionary larger-capacity foam equipment for flammable liquid fires.

The specially designed PHOMAIRE Play Pipe connects to your hose line ( $\frac{3}{4}$ " to  $2\frac{1}{2}$ "). When the water is turned on, PHOMAIDE, a new foam-making solution carried in a Hip Pack, and air are automatically drawn into the water stream in the proper proportions to form foam.

There are no complicated preliminaries, no confusing adjustments, no moving parts. And only one man is required at the Play Pipe.

Less than 20 gallons of water at a pressure of 75 pounds or more are required per minute. This is the only efficient foam unit available for small lines. One gallon of Phomaide Solution makes 350 gallons of foam. 300 to 400 gallons per minute may be continuously produced by merely pouring additional solution into the Hip Pack.

This is NEWS. Without obligation, ask for descriptive literature, prices and a demonstration of the Phomaire Unit illustrated at the left. Don't wait! Mail your request now.



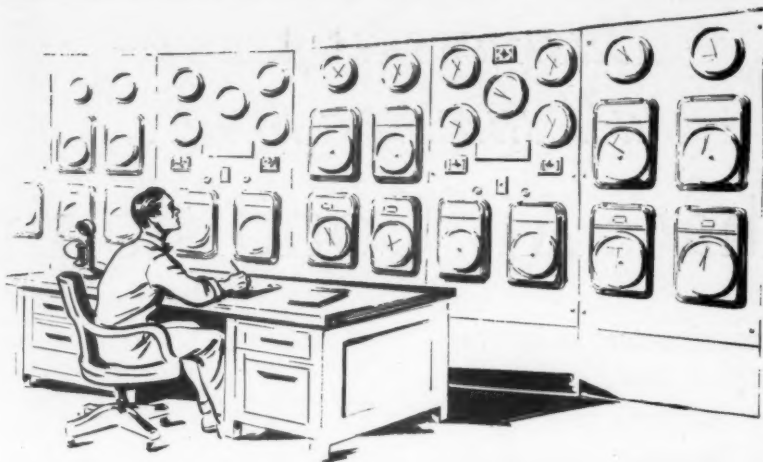
Get the Latest Foam Equipment

**Phomaire** and **Phomaide**  
PLAY PIPE SOLUTION

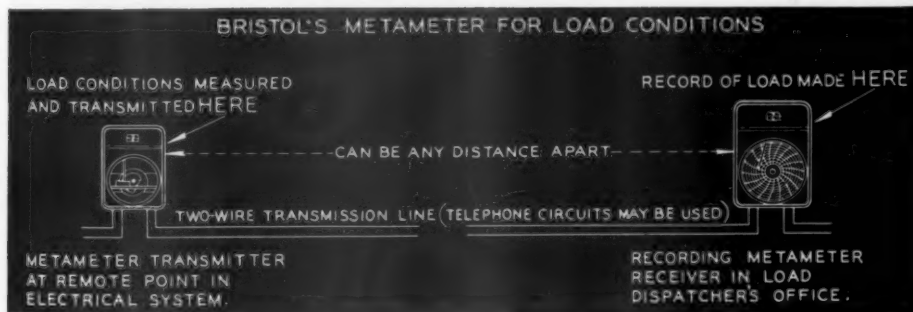
developed, made and sold by

**Pyrene Manufacturing Company**  
NEWARK NEW JERSEY  
ATLANTA KANSAS CITY CHICAGO SAN FRANCISCO





## CHARTS IN DISPATCHER'S OFFICE *show loading miles away*



**N**OW, by just a glance at the receiver chart record of Bristol's Metameter for telemetering, the dispatcher can see at a glance, accurately and conveniently, how load is fluctuating in the inter-connected system.

Is voltage changing here? Is capacity being taxed there? Is power being utilized to the best advantage all around? Metameter tells instantly. What better way to ascertain conditions throughout your system before expanding or disturbing existing facilities?

Only the simplest two-wire circuit is needed between the Metameter transmitter at the distant

point and the recording receiver in headquarters. Any existing circuit will do. You can use a telephone line if you want to,—without interference to the conversation transmitted.

Bulletin No. 424X is the one to ask for.

THE BRISTOL COMPANY, WATERBURY, CONN.  
Branch Offices in Principal Cities

# BRISTOL'S

*Business as usual—  
all summer long...*

# That's Air Conditioning

*—an adventure in human  
comfort that has become  
the retailer's most effective  
summer salesman!*

Because of its very newness—air conditioning, and particularly that part of air conditioning known as summer cooling, has suffered from a vast number of conflicting claims.

Summer Air Conditioning, as "Products of General Motors" provide it, is a business investment—which can be made on a business basis.

For homes and offices—where the problem is to cool a single room—there is the Frigidaire Electric Room Cooler.

There are more Frigidaire Electric Room Coolers in use today than all other makes.

And for stores and hotels and business establishments of all kinds—where the problem is less simple and each job has its own individual requirements—there is Frigidaire Controlled-Cost Air Conditioning.

What is Controlled-Cost Air Conditioning?

In brief, it is a means of fitting cooling equipment exactly to the size and special needs of any business or home—and of supplying full knowledge and control of all costs from first to last.

You get the kind of air conditioning any business needs.

You get the amount of cooling any business needs.

And you get a method of installation that fits any building... whether old or new... owned or leased.

**Frigidaire Controlled-Cost Air Conditioning** grew out of General Motors' vast experience in electrical refrigeration—the basis of modern, summer cooling.

The same leadership in ideas and in engineering which developed Freon (the modern refrigerant) and the Finned Cooling Coil, is behind **Controlled-Cost Air Conditioning** and its money-saving advantages.

Get the facts about Delco-Frigidaire equipment for automatic cooling, heating and conditioning of air.

*It Pays to Talk to*

# DELCO-FRIGIDAIRE

The Air Conditioning Division of General Motors

**AUTOMATIC HEATING, COOLING AND CONDITIONING OF AIR**

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*How*

## THIS PROGRESS HELPS YOU

WHEN you consider what the public gets for its money, there are few branches of the electrical business that can show greater progress than lighting. And there is hardly a better builder of good will. Take street and highway lighting for example. It is thoroughly practical, today, to deliver three to four times as many lumens per watt on the road surface as it was ten years ago. G-E engineers have therefore enabled power companies to meet present-day demands for improved street and highway lighting that would have been impracticable in 1926.

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It pays to select equipment that embodies improved design and advanced engineering—for two reasons: First, you get more value for your money and second, you encourage the manufacturer to do more of this kind of work. The result is continuous progress of the industry—and therefore of your own company.

96-411B

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## The Field Performance Of This Burnham Gas Boiler Equals Its Shop Test

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As a matter of fact the Burnham was approved under the new A.G.A. requirements.

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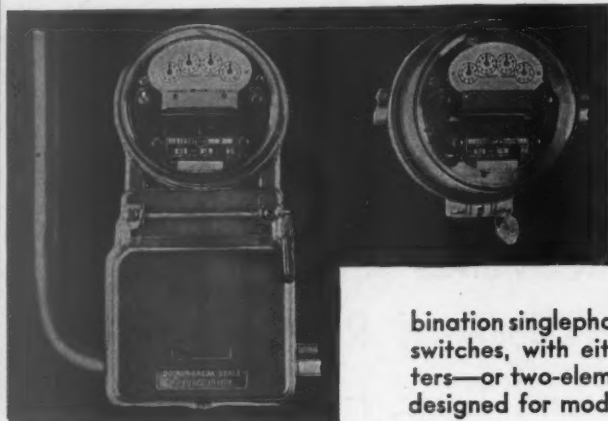


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**SOOT BLOWERS**

*Durable  
Dependable  
Service*

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Sangamo modern meters, whether singlephase watt-hour meters—combination singlephase watt-hour meters and time-switches, with either single or two-rate registers—or two-element watt-hour meters—all are designed for modern "A" and "S" mountings.

# Modern Meters for Modern Loads!

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SPRINGFIELD, ILLINOIS

## GONE-WITH-THE-WIND

IS THE

OLD OPEN SWITCHBOARD

TODAY IT IS  
METAL-CLAD

OUR NEW BULLETIN 66

COVERS IT  
LIKE-A-TENT

(ASK FOR COPY)



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# MORE THAN A MILE OF CUBIC FEET OF *Cooler Air* PER MINUTE

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A  
N**



• No. B4808

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### with Indirect Lighting

Efficient, modern-day illumination, providing glareless, shadowless, soft lighting, is available with GUTHFAN, as one complete unit.

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# POINTING OUT TO YOUR CUSTOMERS

that

wasted heat  
means  
wasted \$\$\$



Surveys show that too many steam tables consume more fuel than needed! In almost every case savings were made by replacing with modern tables equipped with Robertshaw thermostats—or by installing thermostats on the tables in use.

## Cut your costs WITH ROBERTSHAW STEAM TABLE THERMOSTATS



Stop the waste that's going on at your steam tables! Check up and see how Robertshaw thermostats will cut fuel bills. Your gas company or equipment dealer will gladly make the survey.

Robertshaw-equipped steam tables actually save their cost in fuel reduction alone! That's the experience others have had. That's the experience you will have. In addition they prevent overcooking; loss of flavor; food spoilage.

Every day you delay means money out of your pocket. Ask your gas company or equipment dealer today.

ROBERTSHAW THERMOSTAT CO.  
YOUNGWOOD, PA.



ROBERTSHAW STEAM TABLE  
THERMOSTATS

Cost So Little — Save So Much  
FOR STEAM HEATED AND GAS FIRED STEAM

"Stop that waste of heat!" That's the warning that Robertshaw advertising flashes to your customers. "Stop it with Robertshaw thermostats" is the advice it gives. "Have an equipment survey made in your kitchen" is the action it urges—over and over again.

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The savings made by such installations have often resulted in sales of additional new equipment. In many cases complete kitchen modernization has eventually followed.

**ROBERTSHAW THERMOSTAT COMPANY**  
Youngwood, Penna.



Your customers see heat going to waste over their tables. They see it again in the Robertshaw advertising. They see that Robertshaw steam table thermostats will stop that waste. Cash in on this strong promotional campaign. It's running now in your customers' trade papers.

# ROBERTSHAW steam table THERMOSTATS

**Cost so little — save so much!**

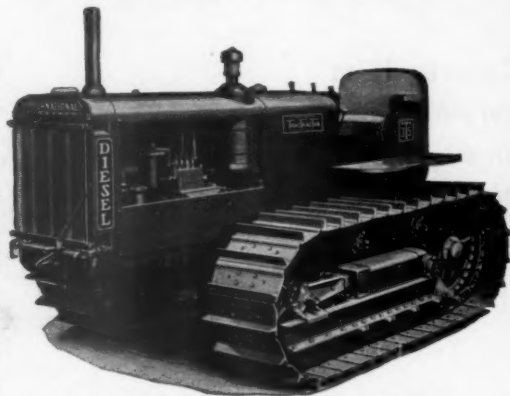
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# INTERNATIONAL *Announces* Two New TracTracTors

The popular features which have won International TracTracTors such an enviable position in the crawler tractor field are now available in two new TracTracTors. One is the Model TD-35 DIESEL, which follows the design of the larger Model TD-40 and brings the many advantages of the International DIESEL Engine in a somewhat smaller tractor at a lower price. The TD-35 is a true DIESEL—in design, performance, and economy—yet it starts on gasoline and converts itself automatically to full DIESEL operation after warming up for one minute or less.

The other new TracTracTor is the Model T-35—a 6-cylinder spark-ignition-type tractor built for efficient operation on gasoline or distillate.

With the exception of the engines, these two new TracTracTors are practically identical. Both feature variable-

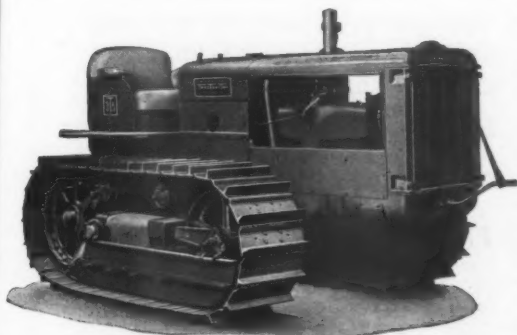


*International Model TD-35 DIESEL TracTracTor*

speed governors; 5-speed transmissions; ball bearings at 43 points; replaceable cylinders; Tocco electrically hardened crankshafts; special dust seals; fuel strainers; air cleaners; oil filters; and unit construction throughout. With this type of construction, important working parts may be removed as units, enabling the owner to make adjustments or replacements in the shortest possible time. This important time-saving feature keeps maintenance costs down.

These two new International TracTracTors (available in standard or wide treads) are already serving many branches of industry, adding to the reputation built up through the years by the International T-20, T-40, and TD-40 DIESEL. International Industrial Power also includes a full line of wheel tractors, and power units in sizes up to 110 max. h.p.

The nearest International Industrial Power dealer or Company-owned branch will supply complete details.



*International Model T-35 TracTracTor*

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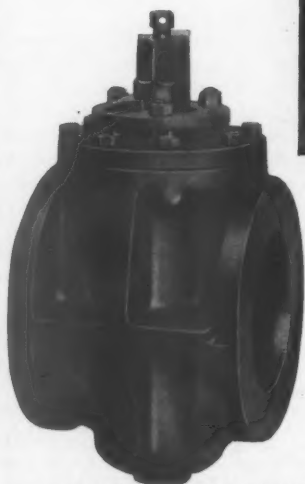
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# INTERNATIONAL HARVESTER

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turn all mine off  
in 60 seconds . . .  
they're Nordstroms."



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Valve with gate valve face-to-  
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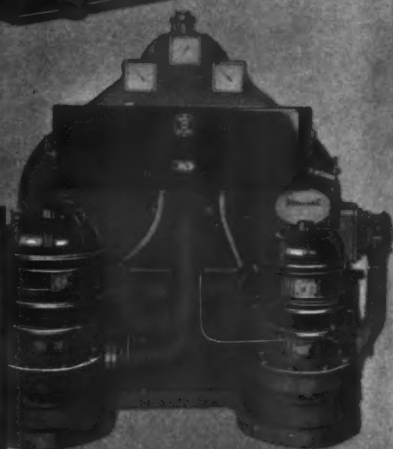
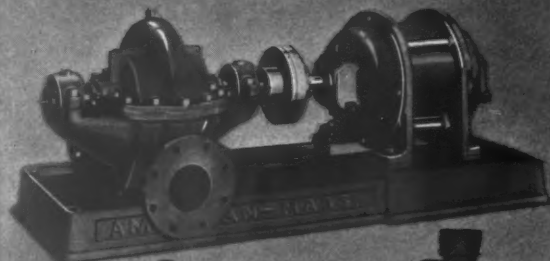
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you checked over your present pumps? Perhaps they cost more to operate and maintain than to replace with modern, highly-efficient AMERICAN-MARSH PUMPS, which may SAVE enough to pay for themselves in a year or two. We build all types. SEND FOR BULLETINS.

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BATTLE CREEK, MICHIGAN . . . Pumps and Pumps Only Since 1873

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 Over 5 million Trident & Lambert in <sup>1913 1937</sup> 24 years  
 Over 6 million Trident & Lambert sold to date

Think! Some 30% of all water meters made to date are Neptune made. For every 14 water meters of all other makes sold, 6 Tridents or Lamberts are purchased. And the rate still soars!



TRIDENT AND LAMBERT WATER METERS  
—SPLIT CASE TYPE

But that's not half the story. Millions of water meters made since 1880 are obsolete—scrapped—a total loss. But of the 6 millions of Tridents and Lamberts, the vast majority are still in service—need never be scrapped. For modern new parts make old Tridents and Lamberts new, even though dated 1899. No deterioration. No obsolescence. Capital value unimpaired. Neptune Meter Co. (Thomson Meter Corp.), 50 West 50th St. (Rockefeller Center), New York City—also—Neptune Meters Ltd., 345 Sorauren Ave., Toronto, Canada.

**NEW PARTS MAKE OLD TRIDENT AND  
LAMBERT METERS NEW—NO DETERIORATION**





### SPECIFICATIONS

Standard Lamps, Size		1000 Watt T-24 BiPost
Luminaire No. (Available with stem-hanger only) .....	A-581	
Diameter of Bowl .....	21"	
Standard Suspension:		
Top of Bowl to Ceiling .....	36"	
Overall Length .....	43"	
Permaflexor No. ....	B-507	
*Standard Finish .....	Roman Silver	
Shipping Weight (One Luminaire Packed) .....	23 lbs.	
Code .....	AFIAWON	
Price each F.O.B. Irwin, Pa. ....	\$23.00	

\*On special order may be had finished in sprayed and baked teal, seafoam green, azure blue or dove gray (husk finished in polished aluminum) at a small additional charge.

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## A Load Builder That Will Make Friends For You

### • THE BIPOST (1000 WATT T-24) TOTALLY INDIRECT LUMINAIRE

HERE is a new, small diameter, permaflexor equipped luminaire, developed by "Pittsburgh" engineers to provide high intensity indirect lighting for rooms where ceilings are low or where larger units are impractical.

It is modern and distinctive in appearance and scientifically designed to control 1000 watts of light in the most efficient and satisfactory manner.

Its shallow bowl—a type much in vogue today—serves only as an ornamental enclosure for the Permaflexor of smooth glass which controls the light.

The fixture is equipped with a unique dual husk, concealing the socket and lamp neck, ingeniously ventilated. No exposed vents mar its design.

Stranded nickel wire with 40 mil. wall of asbestos insulation is used in this fixture, additionally insulated at the socket by refractory tubing.

Many of your customers are prospects for luminaires of this type and you can unhesitatingly recommend this unit which is backed by more than 21 years of successful lighting experience.

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REFLECTOR COMPANY**  
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Proved in 10,244-Mile

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With Half-Ton "Economy Model"  
Pickup—1,000-Pound Load

Location of Test.....	'Round the Nation, Detroit to Detroit
Distance Traveled.....	10,244.8 Miles
Gasoline Used.....	493.6 Gallons
Oil Consumed.....	7.5 Quarts
Water Used.....	1 Quart
Gasoline Cost.....	\$161.66
Gasoline Mileage.....	28.74 Miles per Gallon
Average Speed.....	31.18 Miles per Hour
Running Time.....	328 Hours, 31 Minutes
Gasoline Cost per Mile.....	5.8096
Average Oil Mileage.....	1,365.9 Miles per Qt.
Total Cost of Repair Parts.....	\$6.73

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LOWER COST per load"

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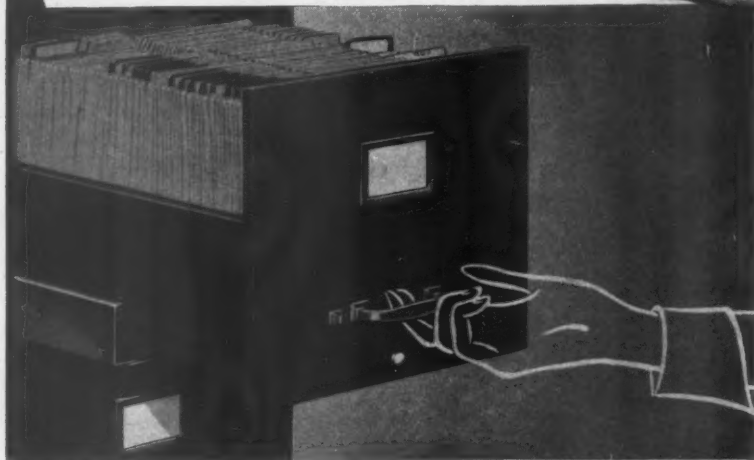
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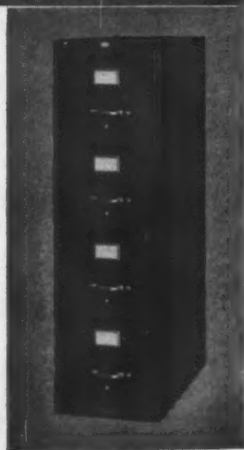
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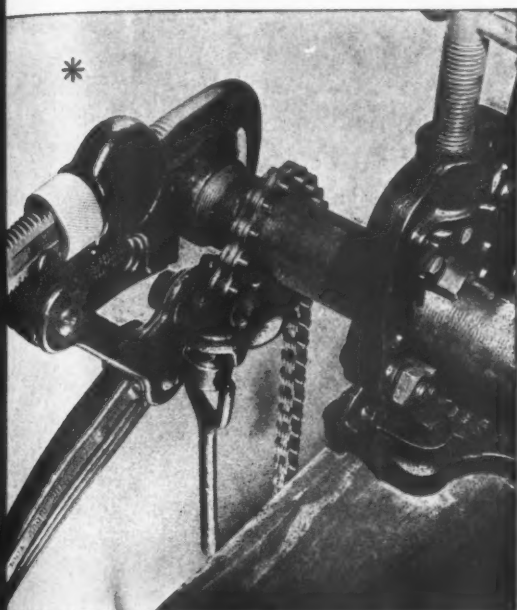
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\* **RIGID** Compound Leverage Wrench tightening a fitting.

## Those Fittings on Tear-Down Jobs . . .

Here's a wrench that will pay for itself and show a profit on your first tear-down job. Fittings may be rusted and frozen but they have to yield to the 10-fold compound leverage of this remarkable **RIGID**

It makes one man into several, whether he's loosening or tightening either pipe or fittings. No more

one man on a wrench handle and a bunch of men sweating over it. No more loss of washed-off fittings.

Attach the trunnion, slap the wrench on pipe or fitting—and pump the handle. Nothing moves but the part the jaws grasp.

Should be in every kit. Comes in 4 capacities—2", 4", 6", and 8". Ask your Jobber or write to us for literature.

Manufactured by the makers of **RIGID** Pipe Wrenches—the wrench with the guaranteed housing that saves you fully 75% of your pipe wrench repairs.



**THE RIDGE TOOL CO., Elyria, Ohio, U. S. A.**

**RIGID PIPE TOOLS**

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Thousands of times an hour oil spurts through this oil-line to scores of points in Plymouth's engine.

It's the most efficient system known... *not all low-priced cars have it.*

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the efficiency and amazing economy of Plymouth's engine are full-length water jackets and directional cooling...resulting in better performance, big savings in both oil and gas, and...longer life!

As a result, Plymouth owners are just about the happiest automobile owners anybody could meet—and Plymouth has a world-wide reputation as "the car that stands up best."—PLYMOUTH DIVISION OF CHRYSLER CORPORATION, Detroit, Mich.

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